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JANES'S UP-TO-NOW

**Doctor Book and Ready
Remedies for the Horse**



Price \$2.00

Jane, Silas Richard.
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Remedies** *for the* **Horse**



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Turon, Kansas

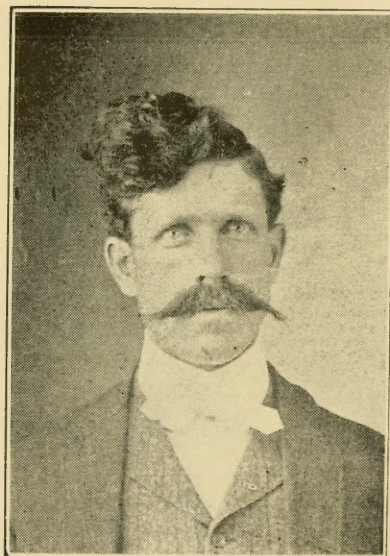


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Page 6-13.



S. R. JANES
Author

BIOGRAPHY

The subject of this sketch was born in Elk County, Kansas, in 1876. His parents moved to Ness County, Kansas, in the spring of 1878. When the country was very new, it was not uncommon for nearest neighbors to be eight and ten miles apart. Times were hard and crop failures plenty, and when we did raise anything, we had to market it with an ox team thirty-five miles to a rail road, usually taking a week to go to town and back. Talk about hard times, we knew what hard times was. Many a time Johnny Cake and cooked wheat looked good while at other times we would try beef tongue and ox tail soup, trying to make both ends meet.

Schools were not very plenty, and not above the average at that, so I received my education (what little I have) at a country sod school house, hence I have never been troubled to any great extent with a literary inspiration. But in early life, I evinced a fondness for horses and began a study of the horse and his many ills, and at an early age began to buy horses for the market being known in many places as the "Kid" horse buyer, finally taking up the Veterinary Dentistry, which profession I have pursued most vigorously for the past fifteen years with very satis-

factorily results to my self and customers as well.

Having been requested many times to write a book that would contain just what the farmer and horseman needed and no more and yet at a price within the reach of all, am at last to expose the product of my think tank in book form, so if this book does not come up to your expectation, there is one palliating excuse, however that is hereby respectfully submitted.

I grew up in Western Kansas. In fifteen years practice, have acquired a piece of land, a small house in town, and blessed with a wife that is a good cook and two sweet little daughters, and a good practice, second to none in the State and what more could a man ask for. Now after all this humiliating explanation, there may be some that cannot understand why this book was written. Well I didn't write it, it's printed "C."

PREFACE

The author of this book is personally known to me, having had occasion to call him in cases of sickness among my horses for many years and can say that he is one of the gifted ones of his profession, in fact he has the gift to discern the nature of the disease with which his patient is suffering and seldom if ever misses his diagnosis. The fact of him being in possession of this gift well qualifies him for the task he has undertaken. Through this book he seeks to give his friends, the farmers and horsemen, the benefit of his years experience.

The fact that the author is well known over several states as a leading veterinary surgeon, coupled with the fact that he has cut out all non essentials pertaining to the horse and condensed it into a small volume of instructions on the common every day ailments; breeding, raising, feeding and treating the horse together with many valuable receipts should make it one of the most popular veterinary books ever published, and we do not think it will take much of a prophet to forecast for him universal success in his undertaking.

JAMES H. WOOD.

This preface was written by a gentleman well known throughout this section of the country "especially" as a lover of fine horses and considered by horse men to be good authority in matters

pertaining to the horse, and being at this time engaged in the breeding of one of the finest types of German coach horses in the United States.

Having learned I was getting out a "right now" doctor book; he volunteered to write the preface, which is here given as a short concise introduction to the author's own efforts, with an esteemed appreciation of the high compliment paid him by this lover of the horse family, the publication of which needs no apology considering the source from whence it came.

Treatment of Horses Teeth

The horse's teeth and their relation to the horse's health, in bringing this little book to the farmer and horseman, I do not do it thinking that it will fill a long felt want, but a short felt need.

Having specialized in dentistry for fifteen years, I believe I am in a position to render a large service to the horseman in this time. When I first took up the veterinary work, fifteen years ago, one of the first things I learned was that not every man that wore the title D. V. S., was a horse dentist having come in contact with three year old colts with lumps on the face and to my surprise many times their owner never dreamed of them having bad teeth and in other cases the farmer had some "hoss-doctor" or "tooth carpenter" to butcher away on his colt only to leave him in a worse condition than he found him. Now colts are just like children. Many children do not shed their first or milk teeth and what is

the result? I will tell you briefly their permanent teeth are there and will, as surely and certainly grow as they are there. Then if the first or milk teeth do not shed the other teeth will crowd in anyway and as a natural result the child goes through life with a mouthfull of crooked teeth; where as if a little attention at the proper time had been paid them, they could have had a nice even set of teeth. Now colts have the same trouble in shedding their milk caps, hence the permanent teeth grow and instead of growing around the milk caps they only grow up through the superior maxilla or face bone, if it is the upper teeth, and in case it is the lower teeth they grow down through the lower jaw, causing lumps to come on the jaw the same as on the face in case it is the upper caps.

Now fifteen or twenty years ago, a great many people were laboring under the impression that wolf teeth also commonly called blind teeth, were the cause of the lumps on the young horses head.

Then about the first thing in order, was to take him to the blacksmith shop and use a hammer and punch it trying to knock out the blind

teeth, and in many cases where the poor dumb animal objected to this form of torture (as that was all you could call it), they were thrown, hog tied, and again subjected to a vigorous pounding on the teeth with about a four pound hammer, perhaps on the right tooth, perhaps not. Mostly **not** on account of laboring under a mistaken idea. Thanks be to Heaven this cruel practice is being fast banished from our fair land.

Twenty years ago, the rough uncouth man, with about every other word an oath, and from a quart to a half gallon of booze in his grip, was a common characteristic of the "hoss-doctor;" but these quacks are being relegated to the Attic of Oblivion and are being replaced by clean manly men in a great many instances, that are graduates from recognized Veterinary Colleges and are well qualified for their position. Such men should be honored and supported accordingly. It is an undisputed fact that such men as these, are an absolute necessity in every community. But on the other hand, there are those unprincipled men who have nothing good at heart for either man or beast, and only wish to load them-

selves down with ill gotten dollars.

May the day soon come when these men, even though they are competent, have to take their place among the class first mentioned and also be relegated to the attic of the has beens, on account of there being no place for them in the class of the Twentieth Century Veterinary Surgeon.

But now, lest I forget, will proceed with my subject. In the first place, a horse cannot be a good sound, serviceable horse unless he has good teeth with which he can masticate his food. When a horse has sharp molars, a long tooth or an ulcerated tooth, he cannot thrive as he should. Hence, he cannot stand the work he otherwise could, but these three are not so serious a subject as the milk cap problem, yet it is given more attention than the coming three year old colt ever has.

This one subject is worth many many times the price of this book if the horseman and farmer will read and thoroughly digest these truths.

As I said in the beginning of this article, not every man that was, or called himself "Doc,"

was a horse dentist and in the first twelve months of my practice I had occasion to examine no less than twenty colts that the owners had looked after his milk caps and though there were a large number of veterinaries represented in this number of colts, I found in every case they had over-looked from one to four and five milk caps in each mouth. By this time I had thoroughly made up my mind that one thing I would do and that was to master the milk cap problem or quit the business; and while I met with failures occasionally, it only made me more determined to go after it all the harder, and in the period of six years, I got so I would never fail on a milk cap and could tell without even looking in the mouth. By just feeling them.

In the last fifteen years, I believe I am safe in saying, that I have run across at least five hundred colts that other men had worked on their teeth and supposed to have removed the milk caps, but had failed to discover them, and in this same number of years, have known of at least fifteen colts that their death could be traced directly to the dentist that had worked on their

teeth. Either by breaking off some of the permanent teeth, thinking they were milk caps where they were not, or by trephining, which is a great hobby with some, mostly because there is from \$5.00 to \$10.00 in it, when if they would take their forceps and remove the caps, they would only have about a \$2.00 or \$3.00 job.

I practiced this method of trephining the first two years of my practice and found it to be a failure, so quit it and have since condemned it, both public and private. Of course there may be a few that would do better by trephining, but they are very scarce.

I have been called on many times to trephine a young horse that had a lump on his face from the cap not shedding. The owner had been advised by some "Veterinary" that this was the only way the tooth could be removed, but to his surprise I refused to take a punch and hammer and knock it out, which system is known as trephining, but would simply take my forceps and remove a few caps and usually in course of a few weeks, the lumps would gradually disappear. Of course they will not always go away, neither

will they go by the method of trephining.

I cannot remember the number of men that have come to me in time and have said, "Doctor, I wish I had taken your advice and not had my horse trephined as the lump is still there and a running sore with it."

The most important of all teeth on the horse, is on the coming three year old colt. As I have said before, if the colt sheds his milk caps as he should, and gets a nice straight set of permanent teeth, he will usually have good teeth until he is well up in his teens. On the other hand, if his caps are allowed to remain on too long and cause crooked, irregular jaw teeth, (that is his permanent teeth) you can see plainly that though you have his teeth dressed every year, he still has a crooked set of teeth. So do not forget this one thing, if you discard the balance of the book.

Bad teeth in horses cause at least forty per cent of the sickness the horse is heir to, such as; impaction, indigestion, colic, and many other ailments. So it behooves the farmer to see to it that his best friend on the farm, the horse, has his teeth in first class condition.

Not more than four years ago, I was called to see a filly three years old or coming three, had only been sick about two hours when I got there, but I told the owner there was very little hope of her getting well and in a few hours she died. Now this same man did not believe in having his horses teeth looked after as he put it. Nature would look after them. In about eighteen months, I was at this man's place and went out in the pasture where he had this filly and got the skull which showed very clearly she had not shed any of her milk caps. In one or two of them, there were small parts rotted out and in these cavities were rotted food. Now while this filly was living, this decayed food would pass into her system every day or two and then these places would fill again with fresh food, only to rot and pass on in to the system poisoning the blood; and there is no doubt in my mind, but this filly's death was caused by bad teeth. Yet I am frequently confronted with a wise horseman that will remark "Oh! my horses teeth are alright, as they are all young." This is a bad mistake, as young horses are the ones that need the best

attention until after they have shed their caps.

Colts usually begin to drop their caps at about thirty months old and by the time they are forty months old they should all be gone. Of course there are some that will shed a little earlier than this and some go until they are nearly four years old. But these cases are very rare, and now say Mr. Farmer, let me tell you right here, in all the dental work you have done, this is the most important of all, and you should know your man is thoroughly qualified to do this work as he can make you big money by removing these caps as they should be, or he can lose you money by not taking all the caps off that are ripe. There has been a great amount of damage done on young horses mouths by unqualified men trying to remove caps or what they thought were caps, but proved later to be permanent teeth.

The first three jaw teeth are all the ones that shed and in case the dentist tries to pull caps farther back, stop him at once, as he is not on to his job.

Now not all men make this mistake intentionally just for the coin they get out of it. But

a great many really think they are pulling on caps, as the milk cap and permanent tooth are very much alike just to look at them in the mouth, but by observing more closely, you will notice that the cap is darker in color and has a much smoother surface than the new or permanent tooth, which invariably has a very deep groove on the face of the tooth. Of course, there are cases that the milk cap is nearly white. By looking into the horse's mouth, you can notice a depression in the teeth and usually this is very light in color and you can count every time this is a milk cap wore down very thin.

I heard of a colt in 1906 on my travel, that the man said he had got a dentist to remove the caps, and in about six or seven days the horse died. This colt was coming four years old and this man said he did not believe in this dental work on the colts. Of course this was enough to disgust anyone, as his colt was the making of a fifteen hundred or sixteen hundred pound horse, and this was his first dental work on horses. I learned where he had taken the colt after death, and sent a young man (then a student of mine)

over to his farm to secure this colt's head, and on his return, we placed it in a tub of lye water until we got all the flesh off, then the secret was out. The dentist had broken off five of this colt's permanent molars, thinking he was pulling at milk caps, and had split the jaw bone in several places. Chances are, this colt died from lock-jaw; from the awful pain caused by this prying on these teeth. This is only one case in dozens I have run across in my travels.

Shortly after this, I had a talk with a farmer that had just had a colt trephined. It had a very large lump on the face and of course "Mr. Dentist" wanted some experience in this line, and told the good old farmer that there was only one way that this tooth could be removed and that was to trephine or punch it out, and of course he gave his consent to the operation and willingly paid the \$5.00. But he was out a good horse, besides being \$5.00 wiser. After he had related his experience to me, and also requested me to come to his place and look his herd over, I made a date to go and also got him to go to the boneyard and bring this colt's head he had trephined, to

the house for me telling him how he would find the caps all hanging on, which he found as soon as he looked at the horse's skull, and also the skull showed very plainly the operator had driven his punch through in to the roof of the colt's mouth instead of slanting with the face bone the way the tooth set in the jaw.

Now, my dear Mr. Horseman, if this book of mine will only convert men to this idea of mine not to allow your horse to be subjected to this cruel and barbarous treatment of trephining. I shall feel amply paid for all my labor in preparing this work, by knowing I have been the cause of relieving a few dumb animals of a great amount of suffering.

The dressing of the older horse's teeth is also important, but not so much so as the colt, as there can not be the harm done on them, as on the colt. The first thing to observe when the operator begins to use his float, is to see that he runs it on the outer edge of the upper molars and the insides of the lower molars. If he attempts to run the float on the face of the tooth, you may know he is a green hand at the busi-

ness and stop him at once, or he will ruin the horse's mouth, as the face of the tooth should never be touched with the float, because the burr or mill which is the rough surface of the face of the tooth, was put there by Nature, to grind the food and should this be filed down smooth, the food will slip out of the teeth and the animal cannot grind it.

I have quite often had a farmer say to me when I would ask them about their horses teeth, that I just had my horse's teeth dressed and now he cannot eat at all, and many times on examination, I found that they had absolutely floated all the rough surface off the tooth. Now, it does not take much of a horseman to tell if the dentist is running his float on the corners of the teeth or on the surface and this should not be allowed under any circumstances.

Blind Staggers and Its Causes

This subject is one of vital importance to horsemen of Kansas, and many other states as well. Kansas alone has lost millions of dollars worth of horses in the last ten years from staggers in its many forms, and will continue to lose them for many years to come, or some people will at least.

Now I expect many people to differ with me in regard to belief as to the cause of blind staggers and I am perfectly willing that they should, as up to date, no one has ever been able to give the cause and thoroughly demonstrate it to the satisfaction of anyone. As the horse seems to have the staggers on dry hay, corn, fodder, kaf-fir corn, straw, green wheat or under any other conditions, but in as much as I have the record of curing as many or more cases of staggers than any one in the state of Kansas, I think my opinion in this matter is worthy of at least an ex-

pression and while some critics may say I am radical on this subject, I want to go on record as having said fifty per cent of the cases of blind staggers could be avoided with proper care, by looking after their having pure or clean water, plenty of salt and above all things, keep them strictly out of the stalk fields. Now I maintain that anything that will cause indigestion or impaction, will cause staggers, as you seldom see a horse with the staggers unless he is clogged to a certain extent. Many of my readers have no doubt at times suffered with an attack of biliousness. When on rising to your feet you would be very dizzy, in fact nearly blind and then again you have had light attacks of Auto Intoxication, which is far worse than just being a little bilious, as in the latter the system has taken up the poison by or through the blood and carried it all through the body, hence a sluggish liver or a badly deranged system. The blood is thick and very black. Now it is a well known fact, that horses suffer from a great number of diseases that the human family is heir to and I maintain that horses, like the human, can be

and are subject to auto intoxication and the treatment of staggers is very much like the treatment of Auto intoxication in man.

If I can get a horse's bowels open in good shape, and his kidneys to act freely, I consider I have him on the road to recovery. In case he is very blind, I usually bleed him freely to commence with, but advise in all cases to call in a veterinary surgeon, if there s one to be had.

But now, Mr. Farmer, if you will always observe these rules, you will seldom, if ever, lose an animal with staggers. Never feed corn fodder, never feed wormy corn as the worm dust is absolutely indigestible. Never feed horses where they have to eat their grain off the ground, this will prove an expensive habit. Never feed old half rotted hay, as there is no nourishment in it. Never feed kaffir corn or wheat straw too long without changing feed on your horses. Never keep your horses closed up in a tight barn, remember pure air is as esessential to health in beast as in man; and also that he should have some salt occasionally and above all things, never soak corn in the summer time longer than from

one feed until the next, and always use fresh water each time, as the habit of having sour corn may cost you a good horse when least expected. Horses, like men, like good clean food as well as an occasional change in diet.

I have had the experience of going through two or three bad epidemics of staggers. The last one in the winter of 1905 and 1906, when Pratt county is said to have lost around three thousand head and Reno and Harvey, each lost hundreds of heads, and I noticed over all my territory some men feeding some kaffir fodder and from all appearances caring for their horses just as the other farmers were that were losing horses, but on investigating more closely I learned that the "lucky ones" as they were termed, were not lucky, but had just used better judgment in the care, by way of changing feed often. Having plenty of, salt in a clean box at all times where his horses could get to it. Always remember when changing feed, do it very gradual for instance, if you wish to change from prairie hay to mowed feed of any kind, or alfalfa, give them a little at a time until they get accustomed to it.

Many men are good to ther horses in the way of feeding, and really some times are too good, by giving them more than they should have. The result is a bad case of colic. This is why I have made the assertion that fifty per cent of cases of staggers could be avoided by proper care.

Colic, It's Cause and Remedy

As most farmers are very familiar with the various forms of colic, I shall only say a very few words on this subject. In the first place, one of the most common causes of colic is over-feeding and then another cause is hard driving on a full stomach, quite often a horse brought in off a hard drive or out of the field and allowed all the cool water it wants, which will naturally retard digestion. When the horse has partly eaten his food he will be noticed to stop eating and show signs of pain, and in a few minutes the owner has found a drench bottle and has a nice bunch of soda and sweet milk. Then in about fifteen minutes, this is followed by some other mixture, maybe molasses and vinegar, and in case this does not work, some knowing one has a sharp knife and bleeds the horse in the roof of the mouth and if this fails, some other remedy is suggested and eventually the horse is real sick and the owner is ready to call a veterinary after

it is too late for the proper medicine to work. Now here is my advice on this subject. If you are not sure it is colic, give none of the so-called colic cures, and in case you are sure it is colic, then give no medicine, unless you know the chemical action of it.

I will give you one of the best all purpose colic cure receipts here I know of, and this seldom ever fails to give relief:

Raw Oil	oz.	24
Turpentine	oz.	1
Tinct. Assafoetida	oz.	1
Chloroform	oz.	1
Tinct. Capsicum	drams	1

Mix and give as one dose.

In addition to the above causes for colic, I might add that bad teeth are a very common cause, hence, it is advisable to have your horses teeth looked after occasionally; if they have a long tooth, have it cut off. Do not allow any one to rasp it down as they are apt to ruin the face of the other teeth before they get it short enough. If the edges are rough or they have a decayed tooth, it should be looked after.

Bots in Horses

Although there is but a few weeks in each year that the horse is free from the bot, it seldom causes trouble; but when they do, it usually terminates fatal. The gadfly deposits its egg on the horses coats during the latter months of the year, only to be taken off into the system later on by the horse biting at itself and getting some of the hair that hold these eggs into its mouth, then of course they are hatched out in the horse and as a general rule in due course of time pass on through without doing any damage. As a rule when they do affect the horse, there is very little that can be done, unless you can determine at once that this is what is wrong, as they set to work at once and burrow their bill into the lining of the stomach so deep that no medicine will reach them.

Here is an old fashioned remedy that is about as good as any and some claim that they never

fail with this remedy if taken in time. Here is the receipt: take of each,

Common Sorghum Molasses.....	1-2 pint
Home Made Soap (soft).....	1-2 pint
Sweet Milk or Cream.....	1-2 pint

Mix and give as one dose.

The bots naturally let go and begin to eat on the sweets or molasses. The soft soap acts as a physic and sends them on through the horse, and the cream saves any bad effect on the stomach from the soap.

Pin Worms and How Treated

These are a yellowish white worm, usually tapers at both ends, and lives and thrives in the horse's intestines under a great many different conditions, but seldom proves fatal. Usually this worm affects the horse more in the fall and winter than any other time of the year. This being on account of the animal being fed on dry feed. Now as these worms vary in size, color and nature, but very little, I shall treat them all as one family, as I have found by experience, what kills one kind, kills all. Hence there is no use to go into detail of all these different species, such as *teres-lumbrici*, *strongyli*; *oxyures*, *filaria*, and many others. In fact there are some thirty odd number of different worms, but in reality they are nearly all the same and my cure in these cases may seem so simple to some, to try in that event you will have to hunt a veterinary who will fix you up all right and as a rule make you pay

enough to think the remedy is all right and a winner.

In the first place when your horse has worms, he will as a rule show it around the annus by small white substances sticking to him. Then in many cases your horse will be very thin and his hair look bad. If you are certain he has worms, the first place cut down his rations by just giving him bran mixed with a little oil meal for a day or two. Then say, in the morning of the third day, just give him water and in the evening give him the following physic:

Raw Oil	1 pint
Bitter Aloes	1/2 ounce
Calomel	2 drams

Give this as one dose, and as a rule the worms disappear.

Sometimes it is well to follow up with the following tonic: Tartar emetic, each one ounce, 1 Q. and S. Tablets No. 20. Mix and add one pound oil meal and give two tablespoonfulls in feed three times daily.

Sore Eyes and How Treated

There is no other one ailment to which the horse is heir to in this Twentieth Century, that is so little understod as this one, and no other ill of the horse is so universally mistreated as this one of sore eyes. About the first thing the farmer does when he finds one of his horses has a sore eye, it matters not whether it is conjunctivitis or what it may be, he dumps a handful of salt into the eye. Naturally adding insult to injury and in case this does not work he dumps in some burnt alum or puts in some calomel. Now, imagine putting calomel in a sore eye. It is no wonder some men never have any luck with horses. It matters not what is the matter with your horses' eyes, never put salt, alum, calomel, blue-vitriol or white vitriol in teh eye, especially full strength.

Here is a good remedy in case of sore eyes, in fact about the best there is for all kinds of sore

eyes, such as inflammation, caused by a kick or getting hurt in any way. Take protargol grains 40, water two ounces, drop a few drops in the eye in the morning, then get atropine sulphate, grains 15, water one and one-half ounces, and drop in the eye in the evening. Of each of these just use once daily. One in the morning and the other in the evening.

Lamanitis or Flounder

This is a very common complaint. As I am called to attend founder quite frequently, I shall instruct my reader in a very short and concise way as how to treat this trouble as well as how to prevent same. Of course in case you let a horse get to grain and gorge himself, as happens once in a while in case of accident, this method of preventing does not apply. But in many cases such as water founder, wind founder and so on, you can invariably avoid this by a little precaution. Wind founder usually comes from hard driving and then stopping your team where they are in a draught. This only takes a very few minutes to wind founder some horses. depending of course on conditions and then comes grain founder, which is as a general rule an accident, but can be caused by feeding a large feed of grain while the animal is too warm. This can easily be avoided by allowing the horse to cool a few minutes before you feed. This also applies

to water founder. Some men bring their horses in from a drive red hot and turn them to a tank to fill up, which is a bad habit. Of course, most authority agree it is not the quantity of water that founders, but is as a rule the first few swallows. If this be true, which I think it is, we should be very careful not to let our horse drink too fast to begin with. In case you get a founder, the first thing give a physic and in case it is a grain founder, you should see to it that your horse gets a good physic. The following is a very good physic:

Bitter Aloes2 ounces.

Raw Oil1 quart

Give as one dose. One-half of this amount is plenty in any other founder, but grain founder, then bleed in the button at the back of the pastern joint by splitting open with your knife, see that the animal bleeds at least one quart from him one teaspoonful nitrate potash in a bran mash twice daily. In case he is so badly foundered he won't eat, give this potash on his tongue and if he is very stiff take a common flat iron and heat

quite hot, turn the foot upside down and fill with turpentine and then place a piece of heavy brown paper over the turpentine and put on the hot iron until the turpentine has all disappeared into the foot and then proceed to treat the rest of the feet the same way and you will soon have a well horse. I have cured some of the worst cases of founder I have ever seen in two or three days by this treatment. This alone, is worth five times the cost of this book to any horseman and will, in case it is carried out save a many case of contracted feet, which as a rule renders the horse unfit for service, as well as valueless.

Contracted Hoofs

As this trouble follows founder, I shall give you a short insight to its cause and treatment. In the first place, founder neglected and let go cause many cases of contracted feet. Then there are many other causes such as poor shoeing, hard driving on long drives and hard roads, sometimes cause contracted feet, partially due to the great exertion and over amount of blood passing to the extremities and allowing them to cool off while standing. Bruises on the feet also cause contracted hoofs. If the case is one of long standing, there is no cure for them. But any case can be greatly helped and in event it has not affected the inside of the foot seriously, they can be cured by the following treatment:

In the first place, pare the hoof down about all it will stand, then get you two gallons of raw oil, place about one quart good and warm in some flat iron kettle, large enough that will hold the

horse's foot, then have about one-half gallon oil boiling hot in another vessel and pour it into this iron kettle until you get it as hot as the horse will stand it, and keep it there for about thirty minutes, and repeat it twice a week for about four weeks and occasionally paint the hoof with the following hoof ointment:

Neats Foot Oil	8 oz.
Oil Tar	8 oz.
Turpentine	4 oz.
Oil Organum	4 oz.

Apply on hoof with feather.

Sweeney

This is caused by the muscles shrinking away and the membrane adhering to the scapula or the shoulder blade, and may be caused by hard pulling, a loose fitting collar, a slip, strain or various other causes. In a short time the horse will go lame and in course of a few days you will notice the shoulders begin to wither away. The majority of these cases are caused when breaking the colt, and if the one breaking the colt would exercise more care and judgment, nine-tenths of these cases could be avoided. In case you are unfortunate enough to have one of these cases, you can very handy cure it without laying your horse off. Of course unless this is treated right, it is sometimes a very stubborn proposition, as I have known cases that had been treated by various ones for as high as two or three years without effecting a cure, and of course when let run this long, are very hard to cure. In the first

place, every one has a cure for Sweeney. They split the skin, drop in a dime and occasionally one gets well. Then again, they fill the shoulder up with turpentine or blister it until it very near brings hair, hide and all off, and so on, but the horse still has the Sweeney. Some split a small place in the shoulder and fill with air. This is very effectual if you perform the operation right, but be sure and see that you have the air under the membrane. That is adhered to the scapula or your work is a failure.

The best and surest way, is to insert a rowel. Take a soft pine stick about fourteen inches long, shave in shape of a paddle, then prepare a strip of muslin about two feet long and three inches wide. Mix equal parts lard and turpentine and saturate the musling, then with a sharp knife, split the skin in the center and at the top of the sweeney then insert your paddle and work the membrane loose carefully until you have it all loose clear to the bottom of the sunken place, then cut out a hole at the bottom and have a hole or eye in the end of the stick and bring it up through the opening at the top and tie the ends

together and secure the animal in some way, so it will not tear this out and be sure and change this strip every three or four days and leave it in there fourteen days. When you can remove it with safety but be sure and turn this string every day and do not leave one string in longer than four days without replacing it with a clean strip. This is the treatment that never fails on sweeney. But my advice, in case you are not handy with instruments, is to call in a veterinary surgeon to operate on your horse to commence with and do the changing later on yourself.

Lampas, Cause and Treatment

This is a very common trouble, but one that seldom bothers the horse as much as it does the horse's owner. I have had countless numbers of these cases in my fifteen years' practice and cannot call to mind of ever charging a man yet to treat his horse for lampas, it being so simple, I would show him so he could treat his horse ever after. In years gone by, men were accustomed to burning the horse for this trouble. But in this Twentieth Century, a man would be arrested for such cruel and barbarious treatment to his dumb animal. In the first place in order to treat this insignificant ailment, you must first understand the cause of the trouble, which I will give you in a few words.

It is caused by the first bar of the upper palate adhering to the incisor teeth, this causes an irritation and the gums swell and naturally interfere with their eating. Now in the first place,

take the tongue in the left hand, draw it out of the mouth far enough to admit of you getting your other hand in the mouth and with your thumb scrape the gums loose from the upper front teeth. It may become necessary to do this two or three times in some cases. But in case you do, rub a little salt in the gums and teeth, this will have a tendency to expedite matters some. A man should never allow anyone to burn or cut his horse's gums for the lampas. If the veterinary has no better sense, the farmers should have.

Collar Boils and Sore Necks

While I am talking on the common ailments of the horse, must not overlook these two, as I have them to contend with in great numbers every year, and these two, like the sweeney, could be in a large measure avoided with plenty of good judgment and a little foresight. Many times an ill-fitting collar starts a sore neck or shoulder, and as a rule at the busiest time of the year, just when the farmer feels he cannot lay the horse off even for a few days.

As a rule these cases are started in the spring of the year after the horse has had an all winter's rest. The shoulders and neck, as well as the rest of the body, are soft and tender, and are thrown into the collar many times that fit in the fall but in the spring is no ways near a fit. But, of course, the poor horse cannot talk and tell his troubles, hence he trudges along day in and day out, his neck and shoulders are getting sore, but

the thoughtless driver never suspects the horse has a sore neck, until by chance he happens to pull on the hame a little hard or catches him by the neck while harnessing him, then if he is a lover of the horse, he sees to it that the horse has his neck and shoulders bathed two or three times a day in warm salt water, then thoroughly dried and a little oil of organum bathed on to help toughen them. But in case he is a howling ruffian he is more apt to take a punch at the side of the horse's head for even flinching under the pain of the sore neck. May God hasten the day when human beings called "men," will more fully appreciate the fact they owe a debt of gratitude to the horse ten thousand times larger than they do to some heartless men that mistreat and abuse him. In case your horse gets sore neck before you are aware of it, see to it that you have his collar adjusted to his neck and shoulders perfectly and keep the sore dry by dusting on two parts pulv. alum, two parts sulphur, one part sugar lead, morning, noon and night, better yet if you have a can of Janes' Antiseptic Healing Powder, dust or sprinkle on sores two or three times daily.

Retention of the Urine

This is usually, or quite frequently caused by the horse being foul. If the horse has a small sheath which is caused by castrating too young, many times, you should draw his yard and pass your finger around the head and also in the opening to make sure there is no hard substances there. Be sure and remove all foreign substances, then have a spoonful of grease handy and thoroughly grease his yard and in ten or twelve hours you should take a pan of warm soap water and wash him out clean. Then bathe him across the loins with Janes' O. K. Liniment and blanket him for several hours. In case he has trouble of this nature again soon, you should give him a few drops oil sassafras in his feed. Say twenty or thirty drops twice daily for four or five days.

Hide Bound

This is not so much a shrinking away of the flesh between the skin and muscles, as it is an alteration of the hide itself. It usually is a drying up of the oily substance of the skin itself. Hence, it becomes dry and hard. The scales to the cuticle no longer yields to the skin, but separating in every direction, turns the hair and gives it a dead staring look, showing plainly the horse is in bad condition. This disease is caused by a deranged condition of the digestive organs.

Treatment: First give a bran mash with about two drams calomel in it night and morning. Just give two doses of the calomel but continue the bran mashes for a week or so, giving about ten to fifteen drops Fowlers solution of arsenic and increase this until you are giving 60 drops twice daily. Give this in the bran mash and add to this day by day a little oil meal, say begin with one tablespoonful and increase until you are giving him about four spoonfuls and your hide bound horse will soon be all right.

Fistulae, Its Causes and Treatment

In the first place, let me say I have met very few who agree entirely with me as to the cause of this disagreeable trouble to which the horse is heir to. But you well know the old saying, "Figures do not lie" (except in gas meters), so I shall give you some of my experiences with this disease. Early in my practice, I discovered this a very hard thing to cure as many men come to me with their horse that seemed to have been cured by some Vetrinary, but the disease broke out later on showing it had only been dried up and not cured. This caused me to make a hard study of this trouble, and as I had from six to a dozen cases on hand at a time treating them for this trouble, I certainly had plenty of study from the practical side of it, and also made all the investigations I could from a theoretical stand-

point. Many authors gave as the direct reason or cause for fistulae too tight a collar, a bruise and such other causes as is well known to all horsemen. Working on this theory for a number of years, with more or less failure, until the spring of 1902, after having made a tour of Oklahoma and Texas, at my professional work in which states I found fistulae to be a very common ailment.

Then following this experience with a tour over the states of Minnesota and the Dakotas, and over many of the provinces of Canada, only to find a very few cases of fistulae in all this northern country. Hence I arrived at the following conclusion. That this disease was of a scrofulous nature, this disease being more numerous in the south than in the north, and I began experiments along this line and in the course of two years I dared any man to bring me a fistulae I could not cure.

Of course, there are some cases that are very stubborn and do not yield very readily to treatment, but if the owner gave me time I would always effect a cure. I never said positively I

could cure all cases until in 1905 when I ran across a little black mare in Oklahoma that had had the fistulae for about five or six years and the owner informed me about six different veterinary surgeons had tried this case, but all had failed to cure. Of course he had become discouraged on account he had paid out nearly \$50.00 on her and still had no cure. Hence it was up to me to treat her, no cure no pay. This being contrary to my system, I was reluctant to begin operations, but on account of this mare being so well known, I finally agreed to treat her and while it took six or eight months, I at last effected a cure and after that treated no less than fifteen cases in that county.

I am a firm believer in the day not being far away when some genius of the profession working out a serum that will be an absolute cure for this trouble as they now have a serum that is being used for this trouble with some degree of success, showing beyond any doubt that this disease is of a scrofulous nature.

Now I do not claim that a strain or collar bruise does not play its part in bringing this

about, but is not the real cause. When this germ is in the system and the horse gets a bruise and make a home for this little germ to work in, hence they begin to multiply and in a short time you see a swollen place on the withers or wherever it comes, as he is subject to this trouble from his ears to his tail. Pole evil is no more than a fistulous sore.

This is a hard disease to give treatment for on account of there being so many stages of it. Take in the beginning where it is just swollen and no pus formed, it can be scattered by applying snow liniment and rub in well, night and morning for two or three days. The receipt of which you will find farther on in this book. In case pus has formed, it should always be opened up in good shape and syringed out with some good disinfectant, but always call a veterinarian if you can get one, as I have found many different stages of this trouble and each demands its own peculiar treatment.

In case you cannot get a veterinary, you should open up the pus sack and insert a piece

of blue vitriol about the size of a marble, common size and in about three days you can lift out the dead sack. Then keep thoroughly clean. Sometimes this treatment alone will cure a very bad case of fistulae.

Farcy, and Its Treatment

This is a very common ailment and one that is difficult to handle, unless taken as soon as it appears. When it affects only a local place on the body, it can be cured in a short time, but when allowed to run until it spreads over the body it gets where it is incurable. When taken in time the following receipt will effect a cure.

Take of each Ki Iodide and Pot Bitart, two ounces. Make into thirty-two powders and give one in feed night and morning, if you see this is doing the work, but not enough, you can have it refilled. If the sores matter any, you should wash them with one ounce Creolin in one quart water.

Warts, and How to Cure Them

Now in the first place let me say there are two or three kinds of warts. Of these, the bleeding is the worst to handle and the one most likely to spread as the blood from them coming in contact with the surface of the skin, will be affected and in a short time another small wart will appear. I have met some men that would remark, "Oh! I can cure warts by tying them off." Now sometimes this will work, and then again it will fail. But this remedy will never fail if the wart is on the body in a place that you can tie close enough to get all of the wart. Tie it tight with a cord and as soon as it falls off, use the following on it until it has eaten it off down under the skin.

Take of Plumbi Acitrate two drams, corrosive sublimate and red precipitate, each two ounces. Powder and dust on the sore morning and evening

and when it eats it off under the skin wash off and dust some of Janes' Antiseptic Healing Powder morning and evening until healed up. I have never known this to fail where used according to directions.

Stocked or Swollen Legs

This is caused many times from sudden colds, heats and then again by hard, long drives and too long standing without exercise. In case this has not become chronic, give the horse, in a bran mash, two drams calomel, morning and evening. Two doses are sufficient, then bateh legs in hot water from the knee to the hoof as hot as the animal will stand. Then wipe dry and bathe thoroughly with the snow liniment and bandage up for eight to ten hours. If this trouble is not chronic, this will effect a cure in from one to three applications.

The receipt for snow liniment is given later on in this work.

Stifle

Sometimes this will happen, that is, what men term stifle. But some say there is no such a thing as a horse being stifled. But let that be as it may, whether it is a strain of the muscle or the bone thrown out of joint, I will give you a remedy here that will help you in case you ever meet with this accident. Of course let me say here, for my part, I believe the bone slips just the same as a dislocated arm or shoulder in man. As I have been called before now to set a stifle, and on getting it to slip back it would pop like a gun and I do not believe the muscles alone would make this kind of a racket. In the first place, lead your horse into a narrow stall so he cannot turn around, then place a rope on his hind foot, the one you wish to replace. Bring the rope up through the manger and pull as hard as you can and at the same time have some one

to stand by the horse's hip and press in on his hip and as soon as it goes back, have a decoction made from steeping white oak bark in the water. Make this very strong, then bathe the hip muscles and leave the horse with his foot tied forward for eight to ten hours before you loosen him. Then you should bathe his hip muscles again. Keep him in a small place for a week or ten days when you are safe to turn him out.

Strains or Swollen Tendons

This is caused by unusual hard driving, running, jumping, pulling, slipping and can, as a rule, be cured in a short time. But if on the other hand, is let go, sometimes becomes chronic and eventually renders the horse useless. As soon as this is noticed, you should bathe the tendons with hot water. Then dry and apply snow liniment or Janes' Liniment for Man or Beast. Then bandage for six to eight hours and repeat if need be.

Bone Spavin

This is a bony enlargement just in front of the hock joint on the inner side of the leg, usually caused by a strain or bruise which causes the ossification of the exudate, hence a bone enlargement. The most satisfactory way to treat them is firing and the profession think they have done well when they have cured fifty per cent of cases. I have heard of men that could cure ninety per cent of them, but have never met one of them yet.

There are remedies such as blisters used for spavins, but I never advise them as they make the animal worse in case they fail to cure.

Here is as good a blister as can be used on a spavin. Take pulverized cantharides, corrosive sublimate of each two drams, petrolatum two ounces. Clip the hair off good and cover the spavin with this salve and in two or three days use some lard on it. In case this does not effect a cure, repeat in six weeks. This is also as good for ring bones as they are the same nature as

spavins and about as hard to cure. As long as I am this near the feet, I shall give you a few words concerning their treatment and care.

Of course many people think when it comes to having a horse's feet fixed up and properly shod, that they are past masters in the art, when in reality they belong in the A. B. C. class. In the first place when you are having a horse shod, never allow the shoer to dub off a great lot of the hoof from above. Of course, if he is the right kind of a workman he won't do this. If there is a very large amount to come off the hoof, it should always come off from the underneath side and never allow too much taken off from the frog, as this should always be a little longer than the rest of the foot. Nature put the frog there to protect the foot from hard jars on rough, solid roads and if it is pared off too much, it can not fulfill its mission, and then always see that the shoe fits nice and neat on the hoof, as I have seen numbers of horses' feet spoiled by poor shoeing. And, on the other hand, if the farrier is onto his job, he can be a big help in relieving many troubles of the feet the horse is heir to.

Grease Heel

In many cases, swollen legs, although separate and distinct from grease heel, many times terminate in inflammation of the skin of the heel and rarely ever comes on the front legs, due I believe to the hind feet being in more filth than the forelegs. This trouble seems to affect mares more often than horses. Hence, this is also proof of the theory that filth causes grease heel. The skin of the heel has a greasy feeling to the touch in its natural state, but when this disease appears, this condition changes and the skin becomes dry and swollen and is on examination, very red and feverish. If this has been discovered before the heel has cracked open and a pus formation set up, it can be treated by bathing with a bucket of good warm water to which about two ounces of creolin has been added. Bathe thoroughly and wipe dry, then dust on freely Janes Antiseptic Healing Powder and repeat every

day, once at least; twice would be better. In case the heel has become badly cracked and pus has formed, then clean thoroughly and poultice with flax seed meal made into a mush with warm water and leave on eight to ten hours. This may have to be repeated. Which, of course, depends on the extent of the pus and each and every case, of course, will have to be treated as the owner thinks best. By one, two or three applications of poultices, then follow up with the first treatment mentioned by cleaning daily and dusting with powder and in a short time this disease will disappear.

Thrush

Next to grease heel, comes this disease called thrush, which also affects the feet and is caused many times by filth. Sometimes by a bruise. This is a very disagreeable discharge of matter from the cleft of the frog. This is very easily detected. If you are in doubt, just take your knife and open up a little and there will be a discharge of offensive matter. Treatment: In the first place, you should clean the foot as I have described for cleaning for grease heel. Then take a piece of cotton and saturate it with equal parts oil tar vaseline and turpentine and push into the cleft far enough to keep out all dirt and filth. This should be repeated once daily for two or three days, then once every other day until healed, which will not take long, if this treatment is strictly adhered to.

Dermatosis or Diseases of the Skin

There are many types of this trouble, such as eczema, surfeit, parasitic eczema and a number of others. But as I shall give a treatment that will work on all these different skin diseases, I shall proceed to treat this trouble as one ailment. While they vary in technical terms, they more or less, all exudate and what will help one will help the other.

I have found this to be a very annoying proposition to the veterinary, as well as to the farmer, I think due more to the difficult task of treating them, than to the seriousness of the malady. In the last few years I have become so accustomed to the farmers asking about this disease, especially in new towns where I give my lectures, that I am really disappointed if some one does not come up and say, "Doctor, I have a horse that has the itch, can you cure him?"

Now in the first place, let me say, the most of these cases are curable. Why not? They are on the human and family and no harder on the horse, if the same amount of labor and care is taken accordingly, but I have learned long ago that just using a little wash of some kind on the outside will never cure this trouble. Since it is a disease or a germ that affects the epidermis, medicine used on the outside will never reach the cause. And by years of experimenting I have found a reasonably sure cure which I will give. Take Ki Iodide and pot. tartrate of each two ounces. Have made into thirty-two powders and give one in the feed once daily and forty tablets I. Q. & S. and twenty grains sulphate arsenic and have made into sixteen powders and give one in the feed once daily at the same time you are giving the other powders. Give one of the first mentioned in the feed in the morning and one of the others in the evening and about the tenth day hitch the horse and drive him until he sweats freely and he will sweat some of this arsenic out through the pores of the skin, which will reach and kill the germ that causes the disease. Of

course, it is necessary to wash the horse with a good strong solution of creolin and curry and clean him after you sweat him. You may have to sweat him two or three times in order to complete a cure.

Of course, the second one of these troubles is not to be treated by the treatment I have given here. It is the only one in the group of skin diseases that do not need to be given this treatment, as its causes differ in some particulars from that of all the balance, in that it breaks out in large massive sores all over the back and hips and sometimes nearly covers the entire body. This is as a rule due to rich food or to high living. Hence, the first thing that should be done is to take the grain away from the animal and also not give as much hay, neither as rich a grade of hay, and then the animal should have plenty of exercise, and the sores on the body should be cleansed with warm water to which plenty of creolin has been added, then thoroughly dusted with Janes Antiseptic Healing Powder. This treatment will soon bring out the worst case of surfeit. This being the second disease referred to above.

Gravel in the Foot

This is a very common accident, if accident it may be called. As the horse gets a small gravel in the edge of the hoof at a seam or in some crevice and it gradually works on in if it is not discovered in time and removed. In case your horse goes lame without an apparent cause, be sure and examine his feet well. Clean them and if you do not discover anything in the foot, then wash out perfectly clean with warm water and dig out wherever you find the least particle of grit or dirt and in case you do not find anything, and if he continues to go lame, watch him close and you may find in the course of a week or so a place at the top of the hoof getting soft or swollen, then you should bathe his foot twice a day in warm water, which will have a tendency to expedite suppuration and as soon as it begins to

look yellow, you should lance it. Do not wait for it to break as this will let the matter burrow down into the foot all the worse and take much longer to effect a cure.

Some of the cases take three or four months to cure them, even at best. In many cases this will cause a contracted hoof and leave the horse permanently blemished. In case the hoof is noticed to be forming a ridge on the rim or in the center, you should have the hoof placed in hot oil for at least thirty minutes each day, and keep the rough ridge rasped down smooth. This hot oil application will only be necessary for two or three days. Then twice a week for some time. In some cases, this has to be kept up occasionally until the animal has grown a new hoof. While this seems like a very difficult task, yet if you have a good animal, it will pay you good interest on your labor, for a three legged horse is a poor seller.

Choke, and How Handled

Greedy horses are as a rule the ones that get choked, and while this, like a great many other complaints, is counted very easy to handle, but many times I have been called on to unchoke a horse that had been suffering for two or three days. Of course if you are going to wait this long, you might just as well not send for a veterinary, at all, as he has no show after the horse has been choked this long and even if the veterinary gets him unchoked, he is apt to die from inflammation of the esophagus.

So many people want to ram a buggy whip or some other kind of an instrument down his throat. The first thing, and to those who make this a practice, let me say this is not only dangerous, but cruel and not one time in fifty does it do any good, and you should never allow this to be done. I will give you a simple remedy and one that will work four times out of five. Take your

horse in the barn and pull his head up and pour about a pint of raw oil down him and leave his head up for at least ten minutes, working his neck where the choke is all the time with your hands. This will have a tendency to work the oil into the oats. Now strap one foot up and get behind him with a whip and make him take three or four good jumps and he will cough some of the choke up and sometimes dislodge all of it the first time. You may in right severe chokes have to repeat this operation. In case you haven't the oil, use lard melted thin enough to pour. In case you haven't either oil or lard, use water.

The Incurable Diseases

In this chapter, I shall give a short description of a number of incurable and partially incurable diseases the horse family is heir to.

The first of these I shall discuss is glanders. This is a condition of the blood caused many times by filth and other times comes from long standing cases of farcy, nasal gleet and, in fact, this trouble invariably comes from these blood disorders. But in any event, this is incurable and anyone that is misfortunate enough to have a case of this disease should never waste any time or money in having it treated, as it always has been regarded as an incurable disease and is not easily detected by the average man and on some occasions, I have known the veterinary profession to disagree on certain cases as to it being glanders. It is not hard to detect as the horse has a bad odorous discharge from the nasal passage

and as a rule in the nose there will appear small scabs and the hair looks bad and on careful examination, you will observe spots over the body showing up under the hair. These symptoms are of an advanced stage. My advice is always in case you have something that resembles this trouble to consult a veterinary and have them to make the test and if it is glanders, have the animal destroyed. One test is the discharge from the head will sink, if the case be glanders, and if not, it is distemper. But I find that can not always be relied upon, as I have known many cases of distemper that the discharge would sink as soon as it would hit the water. This is why I advise calling a veterinary to examine the animal.

Poll Evil

Its Cause and Treatment

This disease is the same as fistulae, only that it is located in a different place, being on the poll bone. The same cause that produces fistulae, will produce this ailment. But owing to the fact that it is located in the place it is, makes it very difficult to treat, and while I have been very positive I could cure any case of fistulae, I have been very unsuccessful in the treatment of Poll Evil, not curing even ten per cent of the cases I treated. This result caused me to refuse to treat poll evil for many years past. I have often heard of men that could cure this trouble every time and I am frank to admit that in all my years of experience, I have failed to find a single veterinary surgeon or anyone else that could make a cure in all cases or even a majority of

cases. There may be men that can do this, but I have him to meet as yet, but we are still living in hopes that our bacteriologists will eventually perfect a serum that will effect a cure on both fistulae and poll evil. As they now have a serum that is beyond a question of doubt a wonderful help in this line, I am of the opinion the day is not far away when a remedy along this line will be perfected.

Hooks in the Eye

This trouble is usually caused by some foreign substance getting in the eye and sets up inflammation and as a general rule, when the swelling has disappeared it has left the hau of the eye a little thick and quite often this will increase and extend out over the eye ball until it becomes very unsightly and has developed into a small fleshy tumor. These can be removed only in one way and that is with a knife, and when you have this done, you should be sure your man is a surgeon, as I have seen many horses that had been operated on for this trouble and the operator had removed the hau of the eye entirely and in reality this leaves the horse in a worse condition than before.

Chronic Pink Eye

I maintain this can not be cured after your horse has had this affliction for a long time. You have a hopeless case. Where the eyes are badly affected and become white and are in this condition for a long time, you had as well save your money as your horse will never be relieved.

Moon Eye

This is also another hopeless proposition. Of course, this is different from the last named ailment of the eye, in that, this disease is a periodical one. At times the eyes are all right and then all at once they begin to look milky. If this condition is only in one eye, there is some hopes of it affecting only the one. But I have seen cases where they have lost one eye and in course of a year or two the other one would go. There is practically no treatment for this disease.

Bone Spavin

This is a small bony growth on the inside of the hind leg pretty well in front. This is caused by a strain, bruise, kick or numerous other causes. At first you will notice the animal go lame and on driving a short distance he will cease to go lame and after he has stood a little while he will go lame as before. In the course of a few weeks, you will notice a lump coming on his leg. This is when the ossification of the exudate takes place.

Treatment: Many of the veterinary profession use blisters and liniments, but I have found this to be very poor policy, for this reason: if you fail to kill the growth, you have made it harder to kill. I have found that the firing iron is the best remedy for bone spavins and with this treatment you are lucky if you effect a cure in sixty per cent of cases. Some maintain they have averaged a cure on four out of five cases, but I never have had that good luck as yet.

Bog Spavin

This is different from bone spavin in that it is soft and comes in the hock joint and is much harder to treat the same as blood spavin or occult spavin. These are very much the same and I have my first man to meet yet that can cure any of these with any degree of success.

Chronic Flounder

This can be helped, but “never” cured. Keep this in mind. If I had so desired in my life, I could have grafted the farmer more on this line than any other, as I have certainly come in contact with numerous horses that had been foundered for a long time and many of them fine horses, but for the condition of their feet. I could have got anywhere from ten to fifty dollars a horse, if I had only told the farmer I could cure them, but as I have gone over very much the same territory for the last fifteen years, I could not afford to do this. In case of a bad founder, you should have it cared for immediately and prevent it becoming chronic or incurable.

Chronic Contracted Feet

This, like chronic founder, can be helped, but not cured. The best remedy is to use the hoof oil which you will find receipt for, later on in this book.

Navicular Joint Lameness

When you have the misfortune to get one of these cases, you can bank on having it always as far as getting it cured is concerned. As this is down in the hoof and in a location where it cannot be successfully treated. This is also called coffin joint lameness.

Corns in the Feet

This is a very troublesome ailment and not uncommon either, and while many quacks claim they can cure corns, I must admit again that I am from Missouri and I have always maintained that once a corn is thoroughly set in the foot, it is always there and in support of my contention, will quote the words from the pen of Dr. C. A. Mathew writing to the A. J. V. M. April, 1912. Among city horses the first and most important cause of lameness is corns. And corns once present, can never be eliminated entirely. If the cause of the corn recurs the corn will soon reappear. A corn is the result of pressure on the sensitive lamina, sufficient to bruise it. Corns are most prevalent on low, weak heels; good strong, high and upright feet are seldom affected.

The nearer the shape of a horse's foot at the heels approaches that of a mule's foot, the less

trouble he has from corns. I have yet to see my first mule with a corn and I treat hundreds of them each year.

For the relief of corns: (I do not say sure, as I think that impossible) remove the shoe. Pare down the weak quarter, bar and all until it gets thin enough to yield to pressure. This will meet with some criticism, as I have known some veterinarians that would not cut the bar of a foot for the price of the horse. But experience is the best teacher and perhaps the ones that condemn paring the bar, do so not from experience, but from theory.

With both bars cut out (I mean try to keep the quarter and bar cut down as closely as possible—mark you, not the wall, but the portion between the wall and frog and in so doing preserve all the wall possible) and with the shoe applied, I am going to demonstrate. The feet will expand so much that, if the shoe will expand the feet and the sole of the foot is removed at the quarter and bars, the pressure will be removed and thus give relief. So much for that, to apply the bar shoes, first level up the foot preserving as much

of the wall at the quarter as possible. Then make a shoe with a bar that extends almost to the point of the frog. Make it with the bearing surface of the bar and rim of the shoe level. About one-third the way exterior from the point of the heel or where the quarter and the wall unite, cut a notch in the bottom of the wall and rasp away enough of the wall posterior so that the wall wont touch the shoe when applied. See that there is lots of pressure on the frog. Put three nails in the weak side, leaving the rear one out and he is ready to go for a month. If both quarters have corns, prepare both the same as described and put all the pressure of the heels of the frog.

These shoes can be made plain, or calked low for summer or rough for winter. I use leather under them in winter to prevent falling. Put the heel calks on parallel with the foot. Never at right angles, for flat or convex feet make a bar as described. Bevel out inside web of the shoe and make it extend as far as possible so it will act as a protection to the weak sole, and above all, never let the shoe touch the sole.

Make the bearing of the wall level and apply it so that at least one-half of the weight of the quarters is on the frog. Remember every three, four or five weeks as the case demands. The proof of this is, I have dozens of horses that work every day with this shoe and appliance and go sound. They have been wearing them from two to seven years and couldn't go two days on an open shoe without going dead lame.

"Mr. Horseman, listen to what Dr. Greiner says about shoeing and be sure your horse is properly shod."

Prevention and Treatment of Corns

There are three kinds of corns which the veterinarian has to contend, and the one in appearance least significant is usually the most troublesome to the young practitioner, that is, the dry corn or the one that simply shows an echymosis or red spot. There are, according to Dr. Zindle, three kinds of corns, viz., the dry, which is a simple redness in the angle of the bar and outer wall and which in my opinion is the most puzzling in so far as diagnosis of the lameness it occasions, since the lameness in most cases is not recognized as being due to the redness or dry corn and is looked for in some other part of the limb. The moist corn is more easily recognized and usually receives proper attention. The suppurating corn is also recognized and proper treatment and rest given to the animal.

The predisposing causes of corns may be divided into the following six classes: Conditions

of the foot, kind of work, immaturity of the tissues, condition of the roads, heredity, faulty shoeing.

The five first are contributory only, but the sixth, in my opinion, is the only real cause. Has any one ever seen a corn in an unshod horse? or one that had never been shot? Then, again, the definition of a corn as given by Dr. W. Williams is sufficient to remove all doubt as to the real cause of a true corn. As veterinarians we do not deny that bruising of the frog and sole of the unshod as well as the shod horse may, occur, but I for one do affirm that true corns can only be produced by the farrier and his improper shoeing. Therefore, the shoer should be educated in the anatomy of the horse's foot and also instructed in the application and the making of the shoe.

The ignorant horse shoer is quite a contributor financially to the veterinary profession, as his poor work causes ALL of the corns that the veterinarian gets to treat as so-called gravel. Corns are not known by that name by the horse shoer, but if suppuration has taken place, gravel

is the name given it by the smith and for some reason better known to themselves nine out of ten attending veterinarians confirm this diagnosis and in that way the shoer is left blameless, and he goes on in the same old rut. As to so-called gravel, from what does it take its name? The writer has been in practice for over forty years and for nine years at practice work in a shoeing shop, yet has never seen a case of gravel, but I have seen thousands of true corns caused by improper shoeing and no doubt in my earlier years, I contributed my share as a manufacturer of corns and in my ignorance I was proud to be recognized as a practical horseshoer.

The average horseshoer is egotistic and no man living can teach him anything about his craft, especially if he has been shoeing horses for eight or ten years. Don't try to teach the horseshoer in anything pertaining to his chosen and studied art. The same may be said of those in the veterinary profession, but as a rule the veterinarian is farther advanced in education and science and this spurs him to the acquisition of

more knowledge and to keep abreast of his professional brothers.

The art of scientific horseshoeing is something that is greatly neglected in the majority of veterinary colleges, and the average veterinary student enters on his professional career insufficiently equipped to face the task of his profession career as far as qualification is concerned for diagnosing and correcting faulty gaits, certain kinds of lameness and deformities of the hoof. Such veterinarians are at a disadvantage, and instead of going to the shoer and explaining to him what to do for his patient and how to do it, he must accept the theory advanced by the shoer and admit his ignorance of the art instead of showing the superiority of his knowledge over that of the common horseshoer. Who gets the credit if the animal gets well? The horseshoer. Who gets the blame if he fails? The veterinarian.

This article was inspired by seeing a request in the AMERICAN JOURNAL OF VETERINARY MEDICINE for December, page 870, for a satisfactory formula for the treatment of corns

in horses. The only correct and scientific formula for the treatment and the prevention of corns in horses that I have ever been able to figure out is as follows:

Correct paring of the foot, and the qualification of the proper kind of shoes to remove the cause of the injury. If suppuration has taken place evacuate the pus and treat the wound as you would any other wound but always remember that the sole of the foot comes in contact with the ground and must be protected from infection. If it is a simple dry corn remove the shoe, pare the sole of the white line, place foot in soft moist poultice for a few days; use a proper shoe that will take off all the pressure over the region of the injury. I have owned and driven horses all my life and for the last thirty years in the city of Indianapolis, which is supplied with plenty of hard streets, and in all that time I have only experienced one case of corns in one of my horses, and this one contracted his corn during a two-month's vacation of mine. This same horse was driven by me for twenty-one years. I am driving at present a mare that was fifteen years old

on the 22nd of February. I have driven her since she was two years old—she is and always has been free from corns or any other blemish and always will be as long as I can see to her shoeing.—S. A. Greiner, Prof. of Shoeing and Lameness, Terre Haute Vet. College, Terre Haute, Indiana.

Heaves

Up to the present day, there has been no cure discovered for this disease. That is, no permanent cure that I have ever found. There is medicine that will relieve this trouble for a while, in fact "shut them down" as it is commonly called, among dinkey horse traders, but this trickery is not countenanced by the honest veterinary.

This disease is not as prevalent in the west, as it is in the east where they feed more alfalfa and clover. This dry rough feed usually being the starter for heaves, as a greedy horse will not take the time he should in masticating his food and naturally this coarse food scratches the throat and causes small ulcers on the esophagus, and in due course of time, these become chronic and naturally cause the horse to cough. Many people have believed this to be an affection of the lungs, but this is a mistake. For further proof on this, see article later on in this book entitled "Heaves: Reason why it is not in the lungs." The best way to relieve this is to feed soft feed or turn them on green pasture.

The Serum Treatment of Poll Evil and Fistulous Withers

Before I get entirely away from this subject, I want to say a few words more about the curative qualities of serum. In the treatment of this affection, as I have said in a previous article, poll evil as well as, fistulae, is being treated to-day very much different than it was ten years ago, but as yet no certain cure along this line has been produced. But I maintain that up to date veterinarians will incorporate this new method into his system of treatment in case of poll-evil and fistulae. I will now quote an article of P. D. & Co., in vererinary notes by S. W. Seibert from the A. V. Review.

This method may not be new to most veterinarians, but is new to me. I had never heard of nuclein being used in fistulae or poll-evil when I began using it.

Case No. 1. An 1,100 pound three year old black horse was brought to me Nov. 12, 1909,

with a history that for three weeks he had carried his head to one side and seemed listless and dull. Then the owner noticed a lump between the ears and brought him to me. I took the horse under my care, opened the abcess, gave good drainage, and treated him under old lines of treatment. Not succeeding at once, I used first one thing and then another until I had employed every thing I had ever heard of from A to Z, but the longer I treated him the worse he became. I suppose I am not unlike most veterinaries in that when other resources fail, I am willing to try any old thing. So I continued until Dec. 17 when I thought the best dose would be one of lead, but the thought struck me to try nuclein, which I did by way of experiment. I gave my patient ten Cc. of Nuclein solution in ten Cc. of saline solution every day, and to my surprise, on the sixth or seventh day, I saw improvement. I kept up the same treatment until January 19, 1910, skipping only four days in this time, and therefore, giving in all fifteen doses.

The horse went home all healed up and has remained so to the present time. I kept the wound well drained and dressed it daily with hydrogen peroxide.

Case No. 2. A gray horse that was brought to me on November 22, 1909, with the following history. He had been bought out of a carload of western horses, which were sold at Shelby, Ohio, in June 1909. The owners said the horse had a small lump on the poll when purchased. This lump was there until one month before he brought him to me, when it had opened. I operated on this case and secured good drainage on November 23, 1909. I guess I used all the medicines in the materia medica, (and then some) in this case, but nothing seemed to do it any good. On December 17, 1909, I begun to use nuclein as in Case No. 1, giving in all sixteen doses.

The horse went home January 5, 1910 all healed up, and was later sold for \$225.00

Case No. 3. A gray six year old thirteen hundred pound mare was brought to me on May 23, 1910, with a well developed case of fistulae.

I gave it good drainage. You can see by the dates there was nearly one year's difference in these cases. In this year bacterins had come to life, so I decided to try this treatment here. I gave five doses of bacterins four days apart with no results whatever. I then began the nuclein as before and noted improvements in six or seven days. She was sent home June 15, 1910 nearly healed up and is at present working every day. (October 21, 1910.)

Case No. 4. On July 22, 1910, I was called to see a case of fistulae near Tiro, Ohio. This was a very grave case; for some reason there had already developed a septicema of the withers. I told the owner that the outcome was doubtful. On tapping the swelling, I found only a small amount of puss, but much foul-smelling sour gas. I had the horse brought to my hospital and gave the abcess a perfect drainage. Two of the spinous processes were diseased. They were removed by means of bone saws. I pushed the bacterins every five days for a month with no improvement. I then discarded the bacterin treatment and begun to give the nuclein every

day, and on September 10, 1910, the horse went home, doing well but not entirely healed up. With local treatment he continued to do well and is at present, (October 27, 1910) all healed up.

I have been using a five per cent nuclein solution and make my own saline solution from tablets prepared for the purpose,, using one tablet to four ounces of boiled water. I report these four cases because I exhausted all other means of treatment I knew without success. I have used nuclein on other cases, but the four mentioned were the worst ones.

The use of Nuclein in poll-evil and fistulae has convinced me that it is a good treatment for these conditions. I warm my solution 20 Cq. hypodermatic syringe to body temperature to prevent shock.

Another treatment of fistulous withers:

A fistula of the withers may result from many and various causes, important among which are heavy contusions and collar injuries with consequent introduction into the tissues of infective materia,. Several cases occurring upon the same farm or at or near the same time, are usually

found to be the result of a common cause. In order to protect those not effected and to convince the owners of animals so affected that the malady is not communicable by association or contact, it becomes necessary to find the cause and remove it.

Within a few days after the occurrence of such an injury there is a marked swelling which usually causes the subject pain when palpated. The nature of the causative agent and the duration of the disease are responsible for a wide variation in the pathological conditions found in these cases, hence symptoms differ quite materially. Necrosis of bone to any damaging extent is quite rare except in cases of long standing or where practitioners pack the fistula tracts with corrosive agents. (I consider the use of corrosive agents in any case of fistulous withers harmful.)

Fifty to sixty per cent of all cases of fistulous will permanently cease suppurating in from one to three years when unmolested. Having observed this, some veterinarians are unscrupulous enough to treat (?) cases for two or three years, seeing them as seldom as possible, doing as little

as possible, and eventually collecting a fee as though skilled service has been rendered.

Complete recovery in fistulous withers consists in regeneration of all tissues destroyed, with union of the skin so perfect that it is necessary to part the hair to find a cicatrix. Of course this is only possible in favorable cases which are treated early, and in which recovery is prompt.

Half the battle in the successful treatment of these cases consists in early establishing surgically, good drainage.

Before operating, the subject should be given an anodyne in a quantity sufficient to perceptibly dull sensibility. The patient is now ready to be confined and I prefer the stanchion with subject retained in the standing position. All hair should be shaved or clipped from the field of operation, and since the majority of cases require drainage anterior to the scapulae, the field is quite large.

When all is in readiness an exploratory incision is made at or near the median line and counter openings are made where necessary. Skin incisions are never made longer than three inches,

as unsightly scars are not easily avoided when this precaution is disregarded.

All tissues between the exploratory incision and counter openings are divided subcutaneously. Fibrous tissue is removed with heavy dissecting shears made for the purpose.

When much hemorrhage results, if it is impossible to ligate vessels, the entire cavity is packed with gauze. The gauze is removed in from three to twelve hours and no more trouble comes from this source.

The most important consideration in connection with the after care is to prevent the subject from rubbing or otherwise bruising or irritating the parts and to avoid frequent irrigations.

If drainage is perfect frequent irrigation is unnecessary, after blood clots are removed, and often gently swabbing the wound with dry absorbent cotton is all that is necessary. The frequent introduction into the wound of strong antiseptic solution certainly retards the reconstructive process.

Very little suppuration should follow the operation and the presence of much pus discharging

from any opening is proof positive that drainage was not properly provided for or that it since has been obstructed. Some cases are prone to develop and needs to be frequently removed that drainage may not be hindered.

During the later stages of healing it is necessary to separate the margins of the skin from underlying tissues, surrounding all incisions to prevent puckering and subsequent blemishes.

The careful use of bacterins in these cases is of great value in that it materially shortens the course of all cases treated.

A. J. V. M.

Contagious Abortion in Mares

This is a subject that should be better understood by the horseman of today, as some seem to think there is no such thing as contagious or infectious abortion. I shall try in this article to convince such a one that there is not only a condition of this kind but elsewhere as well. Last fall when the horse plague was in the country, I was called upon every day to prescribe some good blood medicine and one party that was feeding this to his horses had a mare to lose her colt and in about a week, the second one aborted. The result was I got the blame as he was satisfied something in this blood medicine had caused the trouble, when the fact of the case is this. They had a plain case of infectious abortion as the third one followed in a few days. This same trouble is prevalent among cows and is more common than in mares.

I could write many pages on my experience

with this disease, causes and treatment and so on, but will not burden my reader with it as I want to give you a Canada verterinary's experience with this trouble up there. Following are some of his remarks and you will observe he thinks it a hard proposition.

“The cause of infectious or contagious abortion in mares as far as I know has not been determined, although its course and contagion indicates an infection of bacterial origin, and, strangely enough, it seems to me that this organism is ingested with certain feeds, and must reach the blood through the alimentary tract. Especially is this apparently true in this district where it is very prevalent and highly contagious.

It has been my experience during the last three years in certain districts to give professional advice in regard to this, one of the most dreaded diseases with which breeders have to contend. I have noticed that contagious abortion is more prevalent in certain districts where they let their brood mares run to straw stacks and where they feed green oats and wheat sheaves. On the other hand I have seen outbreaks of this

disease where the mares have never been fed on any sheaf grain, hay or straw, but were run in large pastures or on the range.

Outbreaks of infectious abortion are most common during February, March and April, but I have known affected mares to carry their foals to full time, and have great difficulty at time of parturition to expel the fetus. The foal if alive seems dull, stupid, very weak and dies in a few hours, the mare in nearly every case retains the placenta, which is very hard to remove, and there is a very nasty vaginal discharge with a fetid odor. After the placenta is removed the uterus is found to be congested, hot and tender; the uterine ligaments tense and swollen; flushing the uterus with a weak antiseptic solution of creolin or carbolic acid causes intense pain. The mare will at once throw herself at full length, strain and seem to be unable to expel injection. It has been my experience on returning next day to find the patience tucked up, very stiff, pulse hard and full, temperature 103.5 F., and on examination of uterus to find she had not expelled the injection given the day before. On dilating the os the

mare will strain but seems unable to expel the contents of the uterus which is very fetid; this I remove with a sponge. I then sponge the uterus with clean solution of creolin or carbolic acid with one to two ounces of tincture of opium. Cases that I have treated this way have made good recoveries in from four to ten days. Cases where the placenta has been retained and removed without washing out the uterus have died in a few days from septic infection, or if they recover they will be thin and weak for months, though running at large on good pasture and being given grain in addition.

Mares which abort early, from infectious abortion, say in February, have very little trouble or inconvenience. The fetus in every case that I have ever examined and that constitutes quite a large number seems to be emphysemic and depigmented. Such fetuses often contain deposits like lumps of clotted blood, dark, greyish brown in color of a semi-solid consistency and one-fourth to one-half inch in diameter.

Mares that carry their foals to within thirty to twenty days of the normal time of parturition

are the ones that cause the most trouble; although the presentation is normal these mares are unable to expel the fetus and will often wander around for some days eating and drinking and seemingly in no pain, but they eventually die from septic infection. I have been called to assist in quite a number of these cases and have had great difficulty in removing the fetus, owing to its distension with gas. These fetuses are ballooned until they are perfectly round and nearly filled with a very offensive fluid.

A post-mortem examination of the full-time foals reveals the following condition:

Umbilical cord very thick and edematus; abdominal cavity contains a dirty offensive greyish fluid; liver yellowish brown, very soft and flabby; spleen very much swollen and emphysemic, yellowish grey; thoracic cavity contains a dirty greyish red fluid, between the pericardium and the heart there is a thick gelatinous, tarry fluid, but when exposed to air and light it shows a greyish tinge; heart enlarged, easily torn and very dark, and on section greyish black.

Treatment of this disease has been a failure with me. I have tried antiseptics, both internally and externally, feeding carbolic acid in feed and subcutaneously without success. The best treatment that I have tried has been to isolate the pregnant mare to some pasture entirely separated from the ones that they have been running on. I have always recommended a change of feed in cases where mares have been running as large, especially to straw stacks where they gorge themselves. This I consider one of the predisposing causes of this disease in this section of the province. Lots of this straw has become wet and musty and contains in some cases a large amount of mold or smut and it may ergot. I have very rarely seen this disease where mares are fed hay and kept on high and dry pastures with plenty of good spring water.

There was quite an outbreak of this disease the past year, twenty miles southwest of Calgary. One rancher lost ninety per cent of his foals and others a less percentage. The land in this district is low in some places and swampy and in the spring and summer of 1910 it was very dry,

and some of these swampy places dried up and the stock pastured in them; the feed was partly decomposed and sour and I think that this was the predisposing cause of abortion in this instance. I have been in this province breeding and treating stock continuously for a period of more than fifteen years but I have never seen any cases of infectious abortion in this section until four years ago.

One of my clients, a large rancher who lives in this district lets his mares range and has never had any of this trouble. It seems that brood mares that run at large on the level prairies are practically free from this disease, but where they run on low-lying land and feed on straw stacks they are more predisposed to this disease. If this is so then certain feeds must contain this bacterium. Two weeks ago I was called fifteen miles to an outbreak of this disease. These mares are fat and in fine condition, but have been running on stubble. This grain was not cut until after it was laid flat by a snowstorm last fall and there was a large amount of feed left on the ground,

some very much discolored. I recommended thorough disinfection and removal of pregnant mares to different pastures and feed. The owner was in my office a few days ago and reports no more cases of abortion as yet.

I would like to learn if there is any other, or rather any successful treatment for this disease. Ranchers and farmers are getting worried and no wonder, when one considers the price of horses and what the losses from this dreaded disease mean to them each year. Other practitioners in different parts of Alberta are meeting the same conditions.

It seems to me that it would be a good thing for the farmers if the local government should conduct a scientific investigation of this disease and try to find the cause for it; if it continues to increase for a few more years as it has for the past four years the farmers will be unable to raise horses enough for their own use. Even at the present time horses are being shipped in from the east and from the States although Alberta is one of the best sections in the world for

horse raising. It is up to us as veterinarians to do all in our power to find, if possible, the cause of contagious abortion in mares and to publish our results whether successful or otherwise.

PERCY K. WALTERS, V. S.,
Calgary, Alberta, Canada.

The Colt

Rearing, Feeding and Breaking

To the prudent breeder, the future of a colt is practically under his own control.

We forget that we are living in the Twentieth Century and that times and conditions call for expert mechanics and it is a significant fact that horses like men are retiring from the cheaper service into better, and that from all sides the call is for animals of good form and action of extreme docility and high intelligence. The ill bred mongrel is not wanted as he cannot do what is demanded of the horse today. Too many of our farmers consider that their part is done when they have bred the mare to a sire whose type they admire or whose breeding suits them. The colt comes in due time and is relegated with the dam to some remote pasture, or worse even, it is forced to follow the mare aimlessly from one

end of the soft plowed field to the other in a weary trudge. Then, as the mare is permitted to rest occasionally to cool off, the colt takes advantage of the opportunity to drink, and draws from the foaming udder the over-heated milk, turned from a life sustaining to a death dealing fluid.

The future usefulness of the colt depends upon nothing so much as the feed during the first year of its life. To be useful in anyway a horse must have good bones, and above all, good joints. Bone are built like the rest of the body from the feed consumed by the young animal and if the food does not contain the elements essential to the growth of bone, it is evident that there will be a weakness in this part of the organism. The milk from the dam contains a large proportion of the most necessary mineral substances, such as lime; but the colt seems to require much more in a short time and may be seen trying to supplement this limited supply by taking occasional mouthfuls of soil. Probably no materials at the farmer's disposal contain more mineral or bone forming material than bran and oats, and the colt

should have plenty of these and good hay from the start. It is quite safe, as a rule, to give as much as two quarts of these concentrates mixed per diem as soon as the colt can be taught to eat them, and this can be gradually increased. The colt's temperament and character should be closely studied, however, and ration gauged accordingly. These concentrates and clover hay being rich in protein or flesh forming material, induce rapid development of muscle, sinew, and tendon, as well as bone, and such are the great desiderata in colts.

Feed liberally of the right kind of feed and nature will do the rest, so far as bodily development is concerned.

Yet nature must be given every opportunity and all her forces allowed to do their part of the work. Let the colt have lots of pure air. Give it all the sunshine it requires. Stint it not where good pure water is concerned.

Be very careful that it has ample room to lie down at will. Do not over exercise, yet err not on the other side and give too little. The well

fed colt requires more exercise than the average or poorly fed one.

As the weaning time approaches, the colt should be encourage to eat oats, hay and bran. By careful feeding, he will scarcely know he has lost a part of his ration and will unwittingly substitute that which is provided to replace it. Some people forget to provide a good quantity and suitable substitute. "Better not forget." The same ration may be used during all his colthood days, but keep in mind ever, that larger animals require larger rations.

The training of a colt should begin the day it is born. The first step is to make friends with the new born chap as it is usually easier the first day than ever again, as every thing is new to it then. Never do anything to scare him. Give him some sugar and anything he will eat out of your hands, and do not forget the sooner you break him to the halter and discipline him the better. Colts, unlike some other young animals, are non-descripts for the rearing of which no definite rules can be given or strictly adhered to, but common sense, patience, and alertness should prevail.

The value of any horse is increased or lessened by his education or training. Many colts are ruined in "breaking." Many are never broken at all.

There are three classes of men who "break" colts. One is the easy, kind, patient fellow who lets Mr. Colt do about as he pleases. It can start, stop, turn around, or anything else without remonstrance. Such colts seldom make trusty horses, usually headstrong and unreliable.

Then there is the man who goes at the colt to break or kill—jerking, clubbing, whipping, swearing and so on. Colts broken by such men sometimes get over their fright by proper handling, but are most likely to be natural fools like the breakers. They are always nervous, always ready to run. The right kind is a happy medium and comes just between these two extremes. He is kind and patient, but firm. His efforts are to convince the colt that he is "boss." He has the horse under control always. To accomplish this, it is not necessary to knock the horse down every time you approach him. As I have said before, halter break when young and at the age of three

begin to give him his harness education, by placing the harness on him and let stand for a short time to get acquainted with the new regalia. Then place a strap or rope in the end of the tugs and pull them up against his legs and get him used to this performance, and if he shows no signs of kicking, then bridle him and tie him to the broke horse and lead out of the barn. As you then have him secure and should you try to lead him out alone, he might take such a sudden notion to go that he would go alone. Do not try to teach him all in a day, but step by step and in a short time you have a well broke horse and one worth \$25.00 to \$50.00 more than one that has been spoiled.

The Horse for Business and Pleasure

By Secretary Coburn

In all the ages for which we have authentic history, the horse has been the sturdy and esteemed servant of man. Equally in the avocations of peace and productive industry, subduing the wilderness and its savages, whether human or brute, the march of armies or shock of battle, he has borne a part conspicuous and potent.

Adapted and adaptable to innumerable forms of men's service thus long as no other animal, the time for his displacement is not yet. Although prophets of Evil may proclaim the horseless age as already ushered in. No machine of steel and steam, of cog and cam, no vapor fed motor, nor craft propelled by batteries or boilers, successfully supercedes the percheron at the plow, the

hackney at the carriage, the patchens in lighter harness or the denmarks and the thoroughbreds lazily cantering to my lady on healthful pleasure bent, or fiercely charging under such men as rode at Balakava, Winchester, and San Juan, these invaluable, latter day, developments of mechanical ingenuity profitably and properly supplement but do not supplant the horse, nor detract from his indisputable merits, until human nature becomes something else. The beauty, strength, intelligence and utility embodied in a well bred, well trained horse will be admired of human kind and profitable pleasure found in his production, improvement, and varied use in his better form possessing capabilities never before equaled, the appreciation of him has never been more genuine or more generous than now. It is impossible that this shall seriously abate, even though his production is, as a business, like all others, subject to vicissitudes of supply, demand, fashion and fancy, method and manner, time and place. Some of the horses most noted for speed, endurance and striking excellence, marvels of the equine world, and matchless, have been foaled or reared beneath

the skies of Kansas; demonstrating beyond dispute that nature with lavish bounty has poured into her soil and sunshine and through them into her grasses and grains, those elements out of which are evolved fine fiber and highest courage in horse no less than master. No seer can say that her possibilities for future brilliant achievement in this line, with the world for a market, are immeasurable and need but to be utilized—not in the production of one type alone, but every good type which business demands or pleasure's patronage gives countenance to endow the State in greater measure with that prestige already hers by virtue of conditions made naturally so advantageous.

To help establish a renewed and enlarged faith in a worthy calling, strengthen affection for man's noblest dumb servant; encourage making the most of rich opportunities and bring to Kansas the accruing benefits is the aim of this article.

Let me say here and now as an open confession is good for the soul. I heartily endorse every word of our old secretary, by saying the displacement of the horse is several generations away

as yet. Many of my readers will remember as far back as 1893 and 1894 when you could buy a good smooth twelve hundred pounds horse for \$35.00 to \$40.00 and buyers were scarce at that too. But how is it now? Times have changed since father was a boy. But on every hand you could hear it freely predicted that horses would never be high priced again and no one wanted to breed them for fear there would be no market. But conditions soon changed and since 1900 or for the past twelve years the horse market has been the best ever known and my dear friends, let me sound a warning here and now. With all the modern inventions, steam plows, trolley cars, motorcycles, automobiles combined, to displace the horse, the day is not far distant when we will certainly face a horse famine (I mean the right kind of horses, though). The situation of the horse industry is being affected at both ends, on the one hand, there is a scarcity of good horses today. There has been a widening of demand, or at least of the channel through which demand for American horses extends. The export demand has grown wonderfully during the past few years.

Beginning with almost nothing in 1893 it has increased every year until it now presses us hard to supply the export demand. Unless all signs fail for a good many years to come one of the paying branches of farming will be the keeping of a few good brood mares as work horses and combining with this use of them the production of a colt each year. They must, however, be good brood mares and that type known as the all purpose horse and must be bred to pure bred sires of good individuality and suited in type to the capacity of the brood mare for production. Then if the foal is properly cared for and kept growing from the start, handling it during colthood, so as to make it easy to control, by the time it reaches a saleable age it will be undoubtedly good property. The present situation of the horse industry affords another illustration of the importance of choosing one's lines and then sticking to them through good and evil report. As we have had occasion to say many many times during a number of years past, good colts bred for at any time during the period of depression in the horse industry would have been very saleable property, at good

prices as soon as they reached a marketable age. This has been my oft expressed opinion all thru the period of depression, and the facts have verified this view. And it is my opinion and also seems to be the consensus of opinion among horse men that mules are about to come into their "own" and they can have it all as for me, as I learned long ago not to fool with the cheap running gears of a watch, bicycle or the "business" end of a mule. But now listen, it is as natural for one extreme to follow another as for a duck to take to water, and the time is ripe and the day at hand that about every other farmer wants to trade horses for mules and the fact that the state of Kansas lost 30,000 head of horses with forage poisoning or grass staggers the past fall, has lent much to the impetus of this move. Seeing that mules seldom take this disease or any other for that matter, but mark you, mules are poor breeders and farmers usually are very slow to change from one to the other, as this change (or epidemic) has been about five or six years coming on, and will as surely and certainly take as long to change back to horses from mules as it did

to change from horses to mules if not longer. Now, I think you can figure it out for yourself, that in the next ten years the man who is the possessor of a good span of brood mares that will weigh say fifteen hundred pounds each can demand six hundred per team and have no trouble in finding buyers at this sum if not even more.

I have been from the Atlantic to the Pacific and find fifteen per cent more mules used than were six years ago. Not only in Kansas and Colorado, but in all the other states. It's mules, mules everywhere. The breeders will tell you they would rather breed for mules much on account they are like that much gold. You can sell them when you take them from the mare or at yearlings or two-year-old or most any other age.

Well, this is true, but when this crop of mares run out what are you going to raise mules from then? Oh! you say, the other fellow will do that as they are not all raising mules. This is true, but my dear reader, do you know that about fifty-five per cent of the brood mares are being bred to Jacks? And as they count seventy per cent is a good average, this means thirty per cent off the

forty-five mares that are bred to horses, leaves you about thirty-two colts out of every hundred mare, then say, about four out of these thirty-two are road horses which is a small per cent, this leaves twenty-eight colts, then we will say one-half of them are horse colts, this leaves fourteen colts out of every hundred brood mares. With the natural loss, you can very easily see where the price of good brood mares will be ten years hence and may be in much less time. Of course, I do not expect every one to agree with me on this subject as the doubting Thomas is still with us. He told Columbus he never would discover a new world. But he did. They told Noah they did not believe there would be a flood, but it came. Many said the Atlantic cable could not be laid. But it was. Many great and wise men doubted that Edison would ever perfect a machine that we could talk through, to our friends miles away, but that has come to pass and so it goes. The man that reads this and profits thereby will be the man that makes the coin, because the shortage in horses is inevitable.

Right here let me give you a few words on the horse from Prof. Eugene Davenport of the University of Illinois. When the traction engine and steam plows became realities; when electricity and the cable displaced the horse from the street car service; when the bicycle took its place among the necessities of life and the horseless carriage was something more than a dream; men began to say that the horse had about outlived his usefulness as a domestic animal, and many a ready pen predicted his speedy and practical extinction.

This feeling has become something more than the hasty conclusion of a few correspondents. I find it widely spread. It is the settled conviction of many men and communities and low prices are given as argument to show that the horse is going out of use. As a consequence, horses are not being bred to any great extent and as I see it, we are in imminent danger of a horse shortage or famine. It is true that much of the horse labor is being performed more cheaply and better by machinery. The same can be said of man. All this reduces the value of the low grade in-

dividual, whether horse or man, but it does not threaten the extinction of either species; on the contrary new demands are constantly arising. The horse is coming to be handled by better men than formerly and is becoming more and more like the dog, the companion of the master.

The dray horse is no longer an animated skeleton, driven by a howling ruffian, but a well fed prosperous beast, in good harness and driven by a man who loves a horse. The city delivery horse, his van and his driver, now belong to the advertising department of the establishment and here is a service newly created that needs more good horses than the street car companies ever did. Every friend of the horse will rejoice in his emancipation from the street car and his elevation to the delivery van.

How many men were ever known to sell a carriage horse or a saddler and buy a bicycle? with all its usefulness, it is but a poor substitute for a horse and there is not the least danger of one displacing the other. No man who has ever felt the thrill of answering intelligence along the reins of his favorite driver will ever be satisfied

to confine himself to a dumb thing made of steel of which he himself must furnish the motive power. We seem to forget that machinery has displaced the horse in the most ordinary service. We also seem to forget that the horse is progressing upward as to his occupation and we have been breeding him backward, except as to heavy draft and the race track.

This demand for better horses is not new and transient, but is natural and will endure. It is for breeders to study its nature. Breed such as will satisfy the new conditions and stop the increase of miscellaneous rubbish.

Besides the heavy draft, let us have a useful intelligent horse of medium size with a deep thick chest, upstanding neck, full forehead and large bright eye and open nostril and erect ear, a short leg heavily muscled, with a long low stride that brings the foot lightly to the ground. Then with a short back and strong loin, we shall have a horse of good action, of great endurance and one that will give good promise of rendering good service for twenty years. for such a horse there

is a strong and growing demand. Who will breed him? Out of what blood lines will he be produced?

I am certainly glad to see such men as Coburn and Davenport predicting a future for the horse as they do. But in the latter's remarks, or in his closing remarks he queries out of what blood lines will he be produced.

In answer to this, let me say, there are two breeds of horses that are ultimately destined to fill the requirements. First, the German Coach horse. Second, the Morgan, and of the two, I believe the German Coach horse must lead the Morgan as an all purpose horse. But I am also inclined to believe that as a cavalry horse, the Morgan horse leads all breeds. And in support of my contention, will cite the fact that on account of the shortage in cavalry horses the U. S. Government has taken steps to raise their own horses and their choice seems to be the Morgan horse. As I learn from good authority, that the Government has established a Morgan horse farm in the State of Vermont for the purpose of breeding up the Morgan horse and encouraging breeders in

raising cavalry horses. Of course, I am inclined to believe that for this country and for the horseman's best interest the German Coach is the winner. He has the size, action, has good eyes, good feet, wind and wonderful endurance. Take it all in all, I think they are as healthy a breed as can be found. They have the size to do any ordinary farm work there is to do in this country and in case a drive to town is to be made, they will step off eight and ten miles an hour with all ease. Combined with all the above qualities, they are a very intelligent breed of horses and easily educated or broken, especially is intelligence essential to a good all purpose horse; as a rule the smarter the horse, the more easily he is broken.

The northwestern part of Germany is noted for their high bred horses, especially the provinces of Hanover, Mecklenburg, that western part of Schleswigholstein between the rivers Elbe and Eider and the Grand Duchy of Oldenburg has for more than two centuries been famed for its highly developed type of trotters and coaching horses.

These horses have been carefully selected and bred for generations and enhanced by a strain of thoroughbred blood. Such horses as these are now in great demand as the all purpose horse. And we think not many years hence they will be the most sought for horse in the land and command the highest prices of any horses on the market. Early in the Seventeenth Century, Hanoverian stock was exported for the purpose of improving the breeds of other countries, principally Great Britain, which country afterwards furnished in return many thoroughbreds, the infusion of this blood proving to be a great benefit to the Hanoverian type by moderating their massiveness without a loss of strength. These horses are chiefly distinguished by their elegance and stateliness of movement and use to be used very much as state coach horses. We are told that ever since their introduction into England in 1820, these horses have drawn the Royal carriages and it is said a few years back, the Queen's stables contained some one hundred specimens of the breed.

A bay of this breeding sixteen and one-half hands high was ridden by the Emperor of Germany at the Queen's Jubilee Celebration.

The German Coachers owe much of their rapid development to the fostering care and patronage of the Government, which lent encouragement to the breeding interests as early as 1735 and established a Government stud especially for coach purposes. Its parental supervision dates back for more than a century. Up until recent years there has been comparatively few German Coach horses in the United States, but those importations created favorable impression that it has become more general and we think as yet it is in its infancy. They have proved themselves most prepotent, transmitting their qualities to their offspring with great certainty. These horses are nearly all solid colors, bay, brown or black and range from fifteen hands to seventeen hands high and weigh from twelve to sixteen hundred pounds. The typical coacher should trot very regularly with free knee and hock action, be stylish and handsome. Have short or medium back and good quarters. His shoulders should

slope gracefully back, carrying a lengthy, well arched neck and cleanly chiseled head, free from meat. He should have a clear, full, expressive, dark eye, and the visage of a thoroughbred. His limbs and feet should be absolutely sound, with clean flat bone and his action should be, high, bold and square, with sufficient speed to step off eight to twelve miles an hour, with ease and grace. His disposition spirited and intelligent and you have all that could be wished for in any one horse.

In conclusion let me say Kansas has surprised the world with some of her productions in the line of harness horses, such as Joe Patchen, known as the iron race horse of his age. Was bred and raised by C. and M. M. Rathbone, Peabody, Kansas, and then John R. Gentry, bred and raised on the Toler farm near Wichita, Kansas. Many lovers of the race horse will remember that great and noted match of these two Kansas bred horses at Wichita in the fall of 1899 when nearly 20,000 people had gathered to witness this race for the special purse of \$3,000 and, if I am not mistaken,

not many years hence the eyes of the world will be turned toward Kansas cavalry horses. Judging from the present interest that is being manifested in the breeding of coach horses.

History of the Horse

The early history and origin of the horse is wrapped in obscurity and fable and we really know little or nothing of it, except we have reason to believe that he first came from Asia, like man, and according to the Mosaic account all other animals existing; and that he was used in Egypt more than 1600 years B. C. But with the history of the horse, I shall not encumber this book, which might be enlarged to an enormous extent, if this deparment was entered into at length. Suffice it, then, to discuss the present condition of the horse and its more recent origin, as now existing in this country in addition to his general habits. We have at present time three herds of wild horses roaming at large in the United States, one in the northwest part of Montana and one in Idaho and one in Nevada. Of course a great many people are aware of this fact, but I merely

make mention of this as no doubt it will interest many who do not know at this day and age that there is a single wild horse left in the United States.

The habits of the horse in all countries and of all varieties are pretty much alike. Wherever he is at large he is bold but wary and easily taking note of man's approach and to give him as wide a berth as he possibly can or rather show him a clean pair of heels. Wild horses exist in great numbers yet in parts of Asia and also in South America. From their constant state of liberty and their roving habits, in order to obtain food and water, they are inured to fatigue, and can bear an enormous amount of long continued fast work without that training which the domesticated animal must have. The walk and the gallop are the horse's natural paces and all others are acquired; but nothing can exceed the fiery animation and elegance of movement of the free horse, and in these two paces art has done nothing to improve his form, except perhaps in slightly increasing the speed of the latter. In all countries and in all ages the horse in his native state has

more metal and staying qualities according to his size than his domesticated brother. This is one of the arguments you quite often hear quoted as argument against clipping horses in the spring, but as I am to close on this subject will give a few reasons why a horse should be clipped in the spring and fall as well.

Clipping Horses

I must admit in the beginning, that when men first began this treatment or rather practice, I was foremost in offering criticism as on the spur of the moment, I certainly could see no good from this practice and on the other hand I could not see the animal stand around and suffer from the cold which I though was enough against this practice if nothing more could be said. But as I have said in other places in this book that I was from Missouri, yet I am always willing to be shown, and after watching this practice and studying it closely for years, I find it not only humane but a decided advantage to the horse as well as a benefit to the owner in a financial way.

But now, I want you, my dear reader, to remember one thing and that is, you cannot jump in any old time and clip your horse to an advantage, but if clipped in the right time, you can

keep the horse up on less fed and he is less liable to disease and also less liable to carry disease.

As I have an article before me from the Horse Review that I think just hits the spot which I shall quote and close on this subject.

"Often complaints become numerous as to horses 'doing' badly. Either they are off their feed or their food seems to 'do them no good,' as the attendant expresses it, or they are dull, spiritless, sluggish, easily fatigued, sweat profusely on the slightest exertion and their coats are rough, lusterless and staring. Even horses that are managed on the most approved lines are always very much below par at the season of changing the coat and when it grows long, they suffer from coughs and colds, show signs of debility and do not perform their work well. For most cases of this kind, clipping will be found to be the best remedy and the question, should horses be clipped? can be answered in the affirmative. At least in the case the animals called upon to perform fast or severe work. We are, of course, aware that clipping has its opponents as well as its advocates, although the former are fast be-

coming fewer in number every year. The chief arguments against clipping seem to be our fathers did not clip; that the summer coat comes better in the unclipped animal and that it is contrary to nature, who would not have provided this coat if unnecessary.

The first contention is admitted. The last generation did not clip its horses and for this there were two reasons; it did not know any better, and it had not the same facilities for doing so as exist today. The few horses that were clipped then had the coat removed with the comb and scissors and in some cases with the razor and this meant at a cost of not less than \$15.00 and considerable refreshment. Those who remember the days before the perfection of the clipping machine can quite understand why our fathers did not commonly clip their horses, or when they did so clipped them but once in the season. Moreover their management was no better than ours. Nor were horses healthier; indeed in many cases their stables were hot beds of disease. They were kept at a tropical heat. Generally by the careful exclusion of pure air and the animals were

heavily clothed to prevent the growth of the coat. In large stables more men were kept. Men were cheaper and better and had to rub their charges dry when they came in dripping wet. The hot stables, several rugs and the larger amount of grooming kept the coat from growing to the extent it does now that stables are more airy, clothing lighter and men lazier.

The second objection that the summer coat does not come off so nicely is admitted also. It is especially true if the clipping is too frequent or too late.

To clip after the second week in January is to spoil the summer coat and the animal is of several colors, very rough in coat, and altogether deficient in the bloom characteristic of the animal which has shed its winter coat naturally. Perhaps it is better to have comfortable working health and freedom from coughs and colds during the autumn and winter than a smart appearance in the spring but they can all be secured if there is a judicious selection of time and if ordinary care is exercised. A great deal depends on the breed-

ing of the animal, the grooming and the conditions under which it is kept. It is cold that induces the growth of the coat and a horse turned out or kept in a cold draughty place or stable and only half groomed, will, especially if coarse bred, have a long coat at a much earlier period than one warmly sheltered and well dressed. The theory of interference with nature is absurd.

Nature provides the horse with two coats every year. In the spring he sheds his long winter coat for a fine short covering of hair that is more porous and retains the animal heat less perfectly.

In a state of nature he would be admirably provided to withstand the cold of winter, especially if he got plenty to eat, but under domestication the conditions are changed and he has to work instead of roaming at liberty in the fields. Animals performing fast or severe work with a long coat suffer an unnecessary drain on the system. The sweat of the horse is not a simple mixture of water and salts, but of water, proteid and salts and the observed loss of flesh which follows.

Horses being worked unclipped as was the practice a generation ago is thus readily explained, the chances of chill following the return to the stable of an unclipped animal, with a long winter coat that takes two men an hour to dry, even if they are willing to try, have not been exaggerated.

Therefore, this covering, which, in a state of nature would be an admirable provision for keeping him warm, because under artificial conditions, a source of positive danger to him. This, we think, disposes of the arguments against clipping, certainly where fast working horses are concerned the advantages are too obvious to need enumeration. Unless the circumstances are exceptional, all horses that move beyond a walk should be clipped and artificially clothed and it will be found as a result that they feed, thrive and work better and are less subject to colds and coughs. Some contend that the horse of slow draught neither requires the coat removing nor clothing. That is, that agricultural horses do not benefit by clipping. We are not so sure about it, but the

practice is certainly increasing, and many farmers claim coughs and colds absent. This they did not enjoy before its practice was commenced on their teams.

—By W. R. Gilbert in the Horse Review.

The Examination of the Stable Horses for Soundness

I have been asked every spring about this one line of work and what I think of this law and if I think a veterinary is allowed to charge \$8 or \$10 for examination of his stallion, when the law only allows him \$2.00 for his services.

To the first question:

I answer this law is a step in the right direction, but like many other laws will be badly abused for years to come. In the first place, horses will be passed that should not be and on the other hand if the ex-veterinary has a sore spot he can find a few blemishes on Mr. Farmer's horse and have him registered in the state as such.

Of course, I do not say this will often occur, but these are only a few of many things that can

be put over on the farmer under this law. Of course this like all others will be improved on.

In answer to the second question, will just give you a short article taken from the A. J. V. M. and entitled "The laborer and his hire."

In Kansas where they pay brick layers and stone masons 65c per hour when engaged on state work, but where the law prohibits the payment by the state of more than 50c an hour for veterinary services, the legislature recently saw fit to enact a stallion registration law requiring, among other things, an examination for soundness.

The examination called for is most thorough and must be made by a qualified veterinary. The law provides that the charge for this examination shall not exceed \$2.00 for each stallion examined.

The owner of the stallion pays the fee. The veterinary gets it. The state is no party to the transaction and could with just as much propriety set the fee for attending a case of colic. Most of the veterinaries in Kansas with more or less grumbling against those in the profession whom

they believed to have anything to do or be responsible for the low fee, acquiesced in the two dollar per examination arrangement, but not all.

Dr. W. W. Wiseman of Delphos was recently called to examine a stallion at some distance from his office and charged \$2.00 for the examination and \$10.00 the regular charge for mileage. His aggrieved client took the matter up with the state officials, who supported him in his contention. The matter ended in the courts, where Dr. Wiseman won.

Now I think this article should forever set at rest the doubt in the minds of those that think a veterinary can hitch up and make a ten or twelve mile drive and examine a horse for \$2.00 even though it is the law. The law says NO, the Court says YES. This puts one in mind of the story of the guy that got into jail and sent for a lawyer, and of course his offense was some minor one and on questioning his client, exclaimed, "Why they can't put you in jail for that." But his client having a slight strain of Irish in his veins came back with the answer, "But oi'm here just the same."

There is no doubt but what this law is very lame as there should have been some provisions made for these cases that call for a veterinary at a long distance for this examination and my notion is this law should either be repealed or amended.

A Few Things a Farmer Should Know

I have had occasion to call Mr. Farmer and Horseman's attention to a few of these things many times in the course of my years of practice and more than once have I had them say to me if they had know a few of these things they could have detected the lack of knowledge in a would be veterinary and have stopped him from doing their horse an injury.

I shall only mention the teeth in the way of milk caps as very near every book along this line tells you all about the teeth and that the colt begins to get his permanent teeth at the age of coming three and keeps shedding until he comes five, when he has a full mouth. Now then, dear reader, when you have a veterinary pulling milk caps off from your colts, never allow him to put his forceps on a tooth behind the third

one as he will ruin a permanent tooth. The colt only sheds the three first jaw teeth, remember this. The rest concerning colt teeth, I have already discussed quite fully in a previous chapter.

Another thing: do you know the horse has 216 bones in his body and that one-tenth his weight is blood? Lean horses have more blood accordingly than fat ones. A horse has 24 jaw teeth, 12 incisors and 4 tushes or bridle teeth, 40 in all. A mare the same except the last four. The horse's pulse beat is around 38 per minute; respiration ten or twelve; temperature 98.5; a 1000-pound horse can lose 50 pounds blood and still recover. The average horse's stomach holds about four gallons. This is very small compared with the cow brute. The horse's liver usually weighs from ten to twelve pounds.

Jockey Tricks

How to Make a Foundered and Spavined Horse Go Off Limber.—Take tincture cayenne, one ounce; laudanum, two ounces; alcohol, one pint; rub the shoulders well with warm water, then rub the above on his shoulders and backbone; give him one ounce of laudanum and one pint of gin; put it down his throat with a pint bottle; put his feet in warm turpentine, rub it on the bottom part of his feet with a sponge after taking them out of the water; drive him about half a mile or a mile, until he comes out as limber as a rag. If he does not surrender to his pain, tie a thin cord around the end of his tongue.

How to Make Old Horses Appear Young.—Take tincture of assafoetida, one ounce; tincture cantharides, one ounce; oil cloves, one ounce; oil cinnamon, one ounce; antimony, two ounces; fenugreek, one ounce; fourth proof brandy, one-half gallon. Let it stand ten days, then give ten drops in one gallon of water.

How to Make a True-Pulling Horse Balk.—

Take tincture of cantharides, one ounce and corrosive sublimate, one dram. Mix and bathe the shoulders at night.

How to Distinguish between Distemper and Glanders.—The discharge from the nose, if glanders, will sink in water, if distemper, it will not.

To Make a Horse Fleshy in a Short Time.—

Feed with buckwheat bran, to which add a little of the shorts; keep in a dark stable. Half a day's drive will make a horse fatted in this way poor.

How to Make a Horse Stand by His Feed and Not Eat It.—Grease the front teeth and roof of the mouth with common tallow, and he will not eat until you wash it out.

How to Make a Horse Appear as if He Had the Glanders.—Melt fresh butter and pour in his ears.

How to Make a Horse Appear as if Foundered.

—Take a fine wire or any substitute, and fasten it around the pastern joint at night, smooth the hair down over it nicely, and by morning he will walk as stiff as if foundered.

To Tame Horses.—Take finely grated horse castor, oils of rhodium and cumin; keep them in separate bottles, well corked; put some of the oil of cumin on your hand, and approach the horse on the windy side. He will then move toward you. Then rub some of the cumin on his nose, give him a little of the castor on anything he likes, and get eight or ten drops oil of rhodium on his tongue. You can then get him to do anything you like. Be kind and attentive to the animal, and your control is certain.

Medical Department

Janes Liniment.—Take tincture opii, four ounces; oil spike, two ounces; cajeput, two ounces; oil sassafras, one ounce; oil cloves, one ounce; oil organum, one and one-half ounces; oil mustard, six drams; one ounce of tincture capicum; two ounces gum camphor; one-half gallon alcohol. Use as any ordinary liniment for common aches and pains. For sore throats place one pint hot water in a quart can, then put one tablespoonful of the liniment into this hot water and inhale through the mouth for 10 to 15 minutes three or four times a day, or better still saturate a woolen cloth with the liniment and bind over the mouth for three or four hour and you will be wonderfully surprised at the results. For croup, bathe throat and chest and give 10 to 15 drops every thirty minutes in one teaspoonful warm water until relieved. No family should be without this liniment in the house.

Healing Salve.—One-half pound petrolatum, one-half pound resin; one-half pound sweet elder bark. Simmer over a slow fire for three or four hours until it forms a dark hard salve and you have a splendid salve for cuts, bruises, burns, boils and all kinds of old sores. To use, spread on a piece of cloth and apply to sores.

A Sure Cure for Rheumatism.—Tincture opii, one dram; tincture capsicum, ten drops; alcohol, one-half ounce; sweet oil, one quart; nitrate potash, two ounces: dissolve the potash in the oil, then add the balance. No better remedy known for inflammatory rheumatism. Bathe the parts affected two or three times daily and you will soon have no rheumatism.

Another Good Salve.—Boric acid, one ounce; witch hazel, one dram; sheep's tallow, once ounce; bee's wax, one ounce; sweet oil, one ounce; red lead, one-half ounce; gum camphor, two ounces. Put all these in a stone dish and fry for three or four hours. Spread on paper or cloth and apply to sores.

A splendid remedy for itching piles is made as follows: Menthol grains, fifteen; hammam-

eles, one dram; triturate into a paste and then add boric acid, one dram; vaseline, two ounces (white vaseline). Try this remedy and you will be well pleased with results. I gave this to a friend of mine that had been bothered with itching piles for twenty years and he told me afterwards that he applied this salve night and morning for 10 days and had a complete cure. This is also a fine salve for nasal catarrh.

Cough Syrup.—Take one quart hoarhound and one quart water and boil down to one pint, then add two sticks licorice and one tablespoonful essence lemon and one dram alcohol; ten drops oil organum. This receipt has sold for \$100.00 and it is asserted that several firms are making big money manufacturing it.

Cough Cure.—Oil organum, oil sassafras, oil hemlock, oil cedar, of each, two ounces; raw linseed oil, one quart. Mix, shake well and give one tablespoonful every three hours. Children less.

Pain Killer.—Here is a fine pain killer. Take tincture capsicum, tincture rhubarb, essence pep-

permint, spirits camphor, of each one-half ounce. Mix and give a few drops in warm water. Repeat it if necessary.

Liniment.—Here is an old fashioned home made liniment and a good one too. Take three quarts pure cider vinegar; six eggs. Mix and shake well for 20 or 30 minutes then add turpentine, 16 ounces, and shake well again, then add benzine, eight ounces; aqua ammonia, eight ounces. Always shake well each time before adding each ingredient. Now, if you want to have one of the best liniments made, add to the above 12 ounces alcohol, 8 ounces chloroform. Let stand for a few days and then use as any other liniment.

To Mend Crockery.—Take four pounds white glue; one and one-half pounds dry white lead; one-half pound isinglass; one gallon soft water; one quart alcohol; one-half pint white varnish; dissolve the glue and isinglass in the water by gentle heat; stir in the lead; put the alcohol in the varnish and mix the whole together.

Tomato Catsup.—Boil one bushel tomatoes until they are soft, squeeze them through a fine wire sieve. Add one and one-half pints salt;

two ounces cayenne pepper and five medium sized head onions, skinned and separated. Mix and boil until reduced one-half, then bottle.

Good Taffy.—Two cups sorghum, one cup sugar; four ounces butter. Cook all together until a little dropped in cold water will harden, then add a pinch of soda. Pour onto a buttered platter and let cool until it can be pulled.

Fudge.—Two cups sugar, one-half cup milk; four ounces butter; chocolate as desired, and a teaspoonful of vanilla. Boil all together until it will thread when dropped from the spoon.

Take from the fire and whip until it begins to thicken. Then turn quickly onto a buttered platter and mark in squares as soon as it sets sufficiently.

Good Nut Candy.—Two cups brown sugar; one cup syrup (Karo preferred); one-half cup rich milk (or cream), and a small lump of butter. Boil all together until it will make a ball when tested in cold water.

Take from the fire and whip until it is partly cooled, when the chopped nuts may be added. Then continue whipping until it is quite stiff,

when it may be poured onto a buttered platter and scored into squares.

This candy requires lots of whipping, as it is sticky like taffy that has not ben cooked sufficiently, if it is not whipped.

Dr. Parker's Great Cure for Diarrhoea and Cramps in Stomach.—Two parts tincture camphor, tincture opium, tincture African cayenne, essence peppermint, one part tincture rhubarb. Mix. Dose—Half teaspoonful for an adult, and from five to ten drops for the child. Repeat the dose in fifteen minutes if the patient is not relieved. Bathe the bowels with strong vinegar. This is one of the most valuable secrets that this book contains. It has saved hundreds of lives. If you manufacture this article and sell a few bottles in any locality, its great virtues will soon spread far and wide, and you will have orders from families, druggists, and others. Put it up to retail for 25 cents.

Cement for Broken China, Glass, Etc.—The following recipe, from experience, we know to be a good one, and, being nearly colorless, it posses advantages which liquid glue and other

cements do not: Dissolve half an ounce of gum acacia in a wineglass of boiling water; add plaster of Paris sufficient to form a thick paste, and apply with a brush to the parts required to be cemented together.

Best Blacking for Boots and Shoes.—Ivory black, one and a half ounces; molasses, one and a half ounces; sperm oil, three drams; strong oil of vitriol, three drams; common vinegar, half a pint. Mix the ivory black, molasses and vinegar together, then mix the sperm oil and oil of vitriol separately, and add them to the other mixture.

To Destroy Flies in a Room.—Take half a teaspoonful of black pepper, one teaspoonful of brown sugar, and one tablespoonful of cream; mix them well together and place them in a room on a plate, where the flies are troublesome and they will soon disappear.

To Drive Cockroaches from Your Dwelling.—

Strew pulverized helebore root on the hearth, floor, or places they frequent at night. In the morning the roaches will be found either dead or dying, for such is their avidity for this plant,

that they never fail to eat it when they can get it. Black pulverized hellebore may be had at all herb shops.

Scarlet Fever.—It is unnecessary for a child to die of scarlet fever as it is that it should be blind with cataract.. Let us see. At any time before the body has finished its infectual struggle we are able to help it, not by wonderful medicine, but by the knowledge of anatomy and the application of a little common sense. We consult the sympathetic nerve, and do what it commands us to do. We must give this child salt when it wants it. We must give it acid when it has fever and anxiously craves it, not vinegar, but lemon juice, because the first coagulates albumen and the latter does not, on account of the amount of oxygen it contains. To imitate the smoothing mucus in the intestines, which is not wanting, and to give some respiratory food at the same time, we add some gum arabic. To restore and relieve the injured nerve, we apply moist warmth.

In practice we can fulfil all this with the following manipulations: Undress the child and bring it to bed at the very first signs of sick-

ness. Give it, if it has already fever, sourish warm lemonade, with some gum-arabic in it. Then cover its abdomen with some dry flannel. Take a well-folded bed sheet and put in boiling hot water; wring out by means of dry towels and put this over the whole and wait. The hot cloth will perhaps require repeated heating. According to the severity of the case and its stage of progress, perspiration will commence in the child, in from ten minutes to two hours. The child then is saved; it then falls asleep. Soon after the child awakes, it shows slight inclination for food help its bowels, if necessary, with injections of soap, oil and water, and its recovery will be as steady as the growth of a plant in the green-house if well treated.

Of course if the child were already dying nothing could save it, or if it has effusions in the lining of the heart or brain, it is much better that it should die. But if the above is applied in due time, under the eyes and directions of a competent physician, I will guarantee that not one in a hundred children will ever die of scarlet fever. I know this will startle some of my read-

ers especially those who have already lost children, but I shall go still further. I maintain that a child will never get scarlet fever if properly treated. If the child has correctly mixed blood it will never catch the scarlet fever if put in bed with a sick child. This is still more startling, but nothing easier got rid of.

Moths.—A very pleasant perfume, and also preventative against moths, may be made of the following ingredients: Take of cloves, caraway seeds, nutmeg, mace, cinnamon, and Tonquin beans, of each one ounce then add a much Florentine orris-root as will equal the other ingredients put together. Grind the whole well to powder, and then put in little bags, among your clothes, etc.

Cheap and Good Vinegar.—To eight gallons of clear rain water, add three quarts of molasses; turn the mixture into a clean tight cask, shake it well two or three times, and add three spoonfuls of good yeast, or two yeast cakes, place the cask in a warm place and in ten or twelve days add a sheet of common brown wrapping paper, smeared with molasses, and torn into narrow

strips, and you will soon have good vinegar. The paper is necessary to form the "mother" or life of the vinegar.

To Increase the Flow of Milk in Cows.—Give your cows three times a day, water slightly warm, slightly salted, in which bran has been stirred at the rate of one quart to two gallons of water. You will find if you have not tried this daily practice, that the cow will give twenty-five per cent more milk, and she will become so much attached to the diet that she will refuse to drink clear water unless very thirsty, but this mess she will drink at almost any time, and ask for more. The amount of this drink necessary is an ordinary water-pail full each time, morning, noon and night. Avoid giving cows "slops," as they are no more fit for the animal than they are for the human.

White Wine Vinegar.—Mash up twenty pounds raisins, and add ten gallons of water; let it stand in a warm place for one month, and you will have pure white wine vinegar. The raisins may be used a second time the same way.

To Mend Crockery, No. 1.—Four pounds of white glue, one and a half pounds dry white lead, one-half pound isinglass, one gallon soft water, one quart alcohol, one-half pint white varnish; dissolve the glue and isinglass in the water by gentle heat if preferred; stir in the lead, put the alcohol in the varnish, and mix the whole together.

Extirpation of Cockroaches.—Common red wafers, to be found at any stationer's will answer the purpose. The cockroaches eat them and die. Also sprinkle powdered borax plentifully around there "they most do congregate," and renew it occasionally; in a short time not a roach will be seen. This is a safe and most effectual exterminator.

Great Art of Waterproofing Cloth.—For many years I have worn India rubber waterproof; but I will buy no more, for I have learned that good Scottish tweed can be made completely impervious to rain, and, moreover, I have learned how to make it so; and for the benefit of the public I have been led to sell this recipe, which is as follows: In a pail of soft water put half a pound

of sugar of lead (the acetate of lead,) and half a pound of alum; stir this at intervals until it becomes clear; then pour it off into another pail, and put the garments therein, and let it be for twenty-four hours, and then hang it up to dry without wringing it. Two of my party, a lady and gentleman—have worn garments thus treated in the wildest storm of wind and rain without getting wet. The rain hangs upon the cloth in globules; in short, they are really waterproof. A fortnight ago I walked nine miles in a storm of wind and rain, such as you rarely see, and when I slipped off my overcoat my underclothes were as dry as when I put them on. This is, I think, a secret worth knowing; for cloth, if it can be made to keep out wet, is in every way better than that we know as waterproof.

Great English Harness Blacking. — Three ounces turpentine, two unces white wax, to be dissolved together over a slow fire; then add one ounce of ivory-black and one dram of indigo, to be well pulverized and mixed together. When the wax and the turpentine are dissolved, add the ivory black and the indigo, and stir till cold.

Apply very thin; brush afterward, and it will give a beautiful polish. This blacking keeps the leather soft, and, properly applied, gives a good polish. It is excellent for buggy tops, harness, etc. Old harness if hard may be washed in warm water, and when nearly dry, grease it with neats-foot oil.

Powerful Cement for Broken Marble.—Take gum arabic, one pound; make into a thick mucilage; add to it powdered plaster of Paris, one and a half pounds sifted quick lime, five ounces; mix well; heat the marble and apply the mixture.

Increase of Milk and Butter.—If cows are given four ounces of French boiled hemp seed, it will greatly increase the quantity of milk. If pans are turned over this milk for fifteen minutes when first milked, or till cold the same milk will give double the quantity of butter.

To Prevent Cattle, Fowls, etc., From Getting Old.—If cattle are occasionally fed a little of the extract of the June berry, it will renew or extend the period of their lives. Use in connection with the vanilla bean, and the two will produce the most wonderful results. It will act on people

the same as on the animal kingdom. Now flax seed frequently given to cattle in small quantities will make them, whether young or old, or if as poor and thin as skeletons, soon to appear fat and healthy.

To Fatten Fowls in a Short Time.—Mix together ground rice well scalded with milk, and add some coarse sugar. Feed them with this in the day time, but not too much at once. Let it be rather thick.

Everlasting Fence Posts.—I discovered many years ago that wood could be made to last longer than iron in the ground, but thought the process so simple and inexpensive that it was not worth while to make any stir about it. I would as soon have poplar, basswood, or quaking ash as any other kind of timber for fence posts. I have taken out basswood posts after having been set seven years, which were as sound when taken out as when they were first put in the ground. Time and weather seemed to have no effect on them. The posts can be prepared for less than two cents a-piece. This is the receipt: Take boiled linseed oil and stir it in pulverized charcoal to the

consistency of paint. Put a coat of this over the timber, and there is not a man that will live to see it rotten.

How to Test the Richness of Milk.—Procure any long glass vessel—a cologne bottle or long phial. Take a narrow strip of paper, just the length from the neck to the bottom of the phial, and mark it off with one hundred lines at equal distances; or into fifty lines, and count each as two, and paste it upon the phial, so as to divide its length into a hundred equal parts. Fill it to the highest mark with milk fresh from the cow, and allow it to stand in a perpendicular position twenty-four hours. The number of spaces occupied by the cream will give you its exact percentage in the milk without any guess work.

To Give a Stove a Fine Brilliant Appearance.—A teaspoonful pulverized alum mixed with stove polish will give the stove a fine lustre, which will be quite permanent.

To Clean Furniture.—An old cabinet maker says the best preparation for cleaning picture frames and restoring furniture, especially that somewhat marred or scratched, is a mixture of

three parts linseed oil and one part spirits of turpentine. It not only covers the disfigured surface, but restores wood to its natural color, and leaves a lustre upon its surface. Put on with a woolen cloth, and when dry, rub with woolen.

To Clean and Oil Harness.—First take the harness apart, having each strap and piece by itself, then wash it in warm soap suds. When cleaned, black every part with the following dye: One ounce extract logwood, twelve grains bichromate of potash, both pounded fine; when put into two quarts of boiling rainwater, and stir until all is dissolved. When cool, it may be used. You can bottle and keep for future use if you wish. It may be applied with a shoe-brush, or anything else convenient. When the dye has struck in, you may oil each part with neats foot oil, applied with a paint brush, or anything convenient. For second oiling use one-third castor oil, and two-thirds neats foot oil mixed. A few hours after, wipe clean with a woolen cloth, which gives the harness a glossy appearance.

The preparation does not injure the leather or stitching, makes it soft and pliable and obvi-

ates the necessity of oiling as often as is necessary by the ordinary method.

Salve for Man or Beast.—For all kinds of old sores, use honey and rosin, melted together; add lard enough to make a paste; when cool, it is fit for use. There is no salve better than this its medicinal qualities are excellent.

To Soften the Feet.—Spirits of tar, two ounces; fish oil, four ounces. This is very penetrating, to use where the feet are hard and brittle. Rub it in with a brush upon the crust and sole every night.

Hoof Medicine.—Take Rosin, four ounces; beeswax, five ounces; lard two pounds; melt together, pour it into a pot, add three ounces turpentine; two ounces finely pulverized verdigris one pound tallow; stir all until it gets cold. This is one of the best medicines for the hoof ever used. It is good for corks or bruises of the foot.

Heaves—Reasons Why it is Not in the Lungs.
—First. If the disease was in the lungs, it would create inflammation, and have the same effect as inflammation of the lungs by cold. The horse would be weak and drooping without appetite,

and really, could not be driven two miles as any person would drive a horse. But a heavy horse can be driven from eight to twelve miles within an hour. This is positive proof that it is not in the lungs.

Second. Take a heavy horse and turn him out to pasture forty-eight hours, and he will breathe clear and easy, showing no signs of the heaves. The grass has not reached the lungs, still it has stopped the hard breathing; but if you will give the horse cold water to drink, he will cough. Has the water touched the lungs? No; but it has touched the disease. This is another reason why it is not in the lungs.

I will tell you where the disease is, and what it is caused by. 1st. A dainty horse is not liable to heaves, but a hearty eater is liable to this disease—not from the amount of food that he eats, but from the hoggish way of eating. There are two pipes leading to the stomach and lungs; where they meet there is a throttle valve. A horse on eating coarse food, scratches his throttle; then by a hard drive, and warming the horse, he takes cold in his wound, and becomes a run-

ning sore or canker. By turning the horse to grass the juice cleanses and washes the wound; the grass being cool takes the inflammation from the disease; the swelling is gone, and the horse breathes free and easy as ever. This is positive proof that it is not in the lungs. Then, by feeding with coarse and dry hay, it irritates and creates inflammation and causes the horse to breathe hard again.

Hog Cholera

As I have never made a study of the hog and his diseases, I shall only write this one article on the hog, but let me say in the start, this one article, if strictly adhered to, will be worth many times the price of this book and I am sure will save some man hundreds of dollars worth of hogs.

In my boyhood days I worked on the farm in the northeast part of Kansas for an old time hog-raiser and as it so happened they had some hog cholera both winters I was there; but this old timer never lost a hog notwithstanding all his neighbors lost more or less hogs. I remember one Sunday morning when he was going the rounds looking after the different pens of hogs, I noticed him carrying a candy bucket and dealing out some dope to his hogs and of course as most boys are usually more or less curious, I must know just what this old coon is doing, so proceeded to ask a few questions, and here is the whole secret

just as he gave it to me and now mind you, he says "young man, this advice costs you nothing, but means dollars to you in case you ever raise hogs."

In the first place, I will say his hog pens were built on and along a sand creek in fact, he said if he did not have plenty of sand in the lots he would haul it there. Then he took of wood ashes one part and air slacked lime, four parts and scattered this in the sandiest places in the lot then when he fed his hogs, he would string his feed on top of this mixture of ashes and lime. One thing I have never forgotten and that is his argument on cholera, he said not one-half of the cases of the so-called cholera was real hog cholera. As he argued that worms killed more hogs than ever cholera and after watching him two years and talking to men who had known him for years, and they said he always had been lucky with hogs. I made up my mind that this remedy was simple and inexpensive and if I ever raised hogs I certainly would try this system.

One thing more, lest I forget. This man also made a practice of giving the hogs a small dose

of lye in a bucket of slop to each fair sized hog. This has a tendency to keep the hogs free from worms.

As a further precaution, he also used in case there was any disease in the community, the following preparation: To each fair sized hog he would give two drams of sulphur and half a dram of arsenic in a small amount of slop about twice a month. Now as strange as it may seem, this man never lost a hog from this hog plague and his next door neighbors lost hundreds of dollars worth of hogs before they would adopt his system of treatment. I asked the old gentleman one day why he had not told more men about this plan of protecting hogs, only to get the answer that he tried to tell every man in the country. Then the next thing that came up in my mind was, why would men be so slow to adopt this system of treatment when it was so sure? To this he replied, "This remedy seems too simple." So now, Mr. Hogman, you have this, try it. Do not cast this aside without first testing it out. But now let us go back to the candy bucket we started out with. This old coon of the hills

claimed when finishing up hogs for the market they should have a little salt once a week, as it saved dollars worth of grain. This was a real hog raiser, and why not pattern after him, as I am quite sure such a good preventative is better than all the cures and I am certain much cheaper. I have up to recently claimed there is very little merit in any of the so-called hog cholera cures.

Now one word on sanitary conditions and I will close, as I want to quote some good authority on my above remarks as to cures being failures.

You have heard the expression all your life, "dirty as a hog". Now, while I am no lover of the hog, let me say I think the hog quite a clean animal when it has a chance, so you should always look after your hogs in this respect and see to it that they have plenty of room, clean water to drink, and they will fare pretty well.

Now I wish to quote you a few words from a man well versed on this subject, as he is president of one of the largest hog serum companies in Kansas City, and you can see from the tone of his letter he has very little faith in the curative

qualities of the hog serum, but also tells you this is all right for which it was intended—a preventive which I can sanction from experience. This article by Dr. F. W. Hueben, was read at the semi-annual meeting of the Missouri Valley Veterinary Society, Kansas City, February 1, 1912.

Remarks on Hog Cholera

By Frank W. Hueben, D. V. S.

While diseases of hogs have been considerably discussed, and a repetition of these discussions may seem monotonous, I believe, taking into consideration its vast economic and scientific importance, that too much attention cannot be given it. The losses incurred by the prevalence of this malady among the hogs of our own, and other countries, is almost incalculable.

In the year 1885, losses from hog cholera amounted to over \$30,000,000 in the United States, and in 1887 to nearly \$4,000,000 in the state of Indiana alone. The past year was another one in which the losses were such that it would not surprise me to see them figure approximately those of 1885. In some localities the ravages of hog cholera were so great that farmers who had hoped to market a handsome number of hogs,

lost their herds, not even saving enough for their winter meat. But aside from these exceptionally severe epizootics, hog cholera is with us always, decimating and even annihilating herds, of some parts of our country, causing great financial loss to the hog raisers of the stricken locality and menacing the hog supply of the nation, and always increasing the cost of meat. So I think there is good reason for the discussion and re-discussion of this vital subject.

Hog cholera is a specific infectious, febrile disease of swine, the blood being the tissue most affected. It may be properly classed as a septicemia. It occurs in two forms—acute and chronic, the acute form greatly predominating. It is caused by an ultra-microscopic organism, which, to date, has defied all attempts at cultivation; probably because of failure to find the proper culture media. This organism is contained in all the body fluids, especially the blood, and is so small that it will pass through the finest filter. Its elimination takes place in all excrements, and the rapidity with which it is often disseminated may impress one that it may be volatile. As

stated, the virus is contained in the excretions of the diseased animals, becomes mixed with the contents of the pens and runs; the food and water troughs become contaminated, so that animals such as dogs, cats, rats, or birds, which may pass through or alight in the pens, may transport to other herds. In rainy seasons the virus is washed from the infected fields into the creeks and small streams and in this way may pass it from herd to herd along their course. In dry seasons, as the past one was, the wind may become a great factor in the spread of the disease. It may be carried on the shoes of a friendly neighbor, on wagon wheels, on railroad cars, in fact anything coming in contact with the virus becomes a carrier thereof. Perhaps right here I may state that few stock raisers seem to realize the danger of a visit to the stock yards, where the infection always abounds, and from whence it may be carried home and cause destruction among their own and their neighbors' herds.

Another important factor is the failure, of some whose hogs have died of the disease, to properly dispose of the carcasses, leaving them

unburied or unburned, and in this manner allowing carrion birds and other animals to carry the infection from place to place. In fact, the ease with which this infection is disseminated has convinced me that a strict, thoroughly effective quarantine is extremely difficult, if not impossible, of execution. True quarantine is helpful to a limited extent, but it will never entirely prevent the spread of the costly scourage from infested to non-infested areas.

The incubation period of this infection varies from five to fourteen days, usually about seven to eight days, and produces the following symptoms:

At first there is listlessness; this occasionally is preceded by shivering; the sick animals separate themselves from the rest of the herd; their temperature rises two to three degrees; there is disinclination to eat, and when driven the sick hogs lag behind, showing weakness, staggering; this is more pronounced in the hind quarters; the ears and tails are drooping; there may be swelling at the base of the ears; their temperature

keeps rising until it reaches 107, 108, 109 and even 110 degrees F.

There is complete anorexia; sometimes there is a mucoid nasal discharge and lachrymation with adhesion to the eyelids; there appears a thumping and drawing in of the flanks; this thumping is usually non-synchronous with the respiratory movements; the respirations are accelerated; usually but not always there develops a dark-colored, foul-smelling diarrhoea, this may be preceded by constipation; sometimes petechiae and ecchymoses, or blotches appear in the skin of the abdomen, between the thighs, and on the breast; these always occur in other parts of the skin, but cannot be so readily seen as on the parts mentioned. Death usually occurs in from one to five days in acute cases.

In chronic cases the symptoms are practically the same, but much slower, and less intense in their development; hemorrhagic areas of the skin are nearly always present and are from dark red to purplish in color. Progressive emaciation also takes place, which is not so pronounced in the acute cases.

Post-Mortem Lesions.—Varying-sized hemorrhagic areas of skin, located especially between the thighs, along the abdomen and on the breast; when the skin is removed the subcutaneous tissue usually shows many small ecchymoses; the inguinal glands are usually but not always hemorrhagic; the sublimbur, mesenteric, gastro-hepatic, bronchoesophageal and submaxillary lymphatic glands are nearly always hemorrhagic, varying in color from light red to almost black. The spleen is usually enlarged, dark in color, and friable, but is often found perfectly normal or just studded with petechiae or ecchymoses, especially along its borders and under surface. The kidneys are usually congested but sometimes pale in color, and show from a few to great number of petechiae and ecchymoses; these are sharply defined and will not wash off or disappear on rubbing or on the application of pressure. The peritoneum, both parietal and visceral, may or may not show petechiae or ecchymoses of the underlying tissues. The greater lobes of the lungs are seldom involved, except occasionally ecchymoses under visceral pleura may be found. The cephalic

lobes, however, are nearly always in a state of either red, mixed or gray hepatization. Changes in the heart are rare. In one or two cases I have found ecchymoses on the external surface of the auricles. The stomach contents are sometimes mixed with blood; the mucous membrane congested and petechiae may be found under the serous surface. The small intestines usually appear normal, except there may be petechiae under the serosa and congestion of the mucosa; the same can be said of the cecum and colon; except in chronic cases, the mucosa is congested, thickened and presents necrotic ulcers, especially near the ilio-cecal valve; these ulcers varying in size, have a button-like appearance, and are covered with a dirty appearing coat which when removed discloses a ragged crater. Occasionally there is also a hemorrhagic infiltration of the bones, especially noticeable in the cancellated portion of the vertebrae and sternal segments. In the clinical diagnosis of hog cholera the symptoms which have impressed me as being diagnostic are, high temperature, inappetence, weakness of the hind quarters, dark colored diarrhoea, thumping of the

flanks, which is non-synchronous with respiration, and hyperemic areas of the skin.

On autopsy the following lesions verify diagnosis: hyperemic glands, enlarged, dark colored, friable spleen, petechiae or ecchymoses in the cortex of the kidneys and under the serous membranes, hepatization of the cephalic lobes of the lungs; hemorrhagic areas of the skin, and in chronic cases ulceration of the mucous membrane of large intestine.

Differential Diagnosis

Swine Plague.—In swine plague there is marked dyspnea, hacking cough, thumping of flanks is synchronous with respiration, absence of dark colored diarrhoea; there is a diffuse erythema, light red in color, which affects principally the thoracic region.

Post-mortem.—Congestion, hepatization, and necrotic areas are found existing simultaneously in the lungs, giving them a mottled appearance when cut; this is usually associated with fibrinous or purulent pleuritis and pericarditis; the congestion of the lymph glands is not as pronounced as in hog cholera. Usually confined to the cortex of the gland. There is no petechiae or ecchymoses on the kidneys; the spleen is normal, the mucous membrane of the intestines is normal and the temperature does not reach the height it does in hog cholera.

Pneumonia.—Marked dyspnea, thumping of the flank synchronous with respiration, cough is always present, no diarrhoea, is not as contagious as hog cholera.

Post-mortem.—Congestion, red, mixed or gray hepatization involving the greater portion of one or both lungs, absence of hemorrhagic areas of skin; kidneys, spleen and intestines normal.

Worms.—Absence of high temperature, detection of parasites in the feces and occasionally in the vomition. No hemorrhagic areas on skin, anemic mucous membranes.

Treatment.—As the agents which have been selected for our materia medica have proven inefficient as curatives for this malady, prophylaxis seems to be the proper and only treatment at hand.

As stated in the beginning of this paper, complete quarantine being practically impossible, we must do the best we can along that line. Hygienic measures can be applied in the care of hogs as well as other animals; clean water, clean and proper feed, clean, well drained quarters, clean surroundings, the liberal use of disinfectants and

the exclusion of strange animals, can do but good. But by far the most reliable preventive now available is the administration of potent anti-hog-cholera serum by the simultaneous method. The proper use of this agent should become the means of exterminating hog cholera from the herds of the country, if we can educate, or persuade, the raisers of swine to have all the unvaccinated hogs now in the country vaccinated and continue the vaccination of all pigs littered ten to fifteen days after birth, or at the time of weaning.

If this can be accomplished, I firmly believe that the days of hog cholera are numbered. To date it appears the inclination is to use anti-hog-cholera serum as a curative for the disease, which is not its proper field as the results obtained are absolutely uncertain. True, the mortality in infected or exposed herds may be considerably reduced by its administration after infection; but no definite proportion of recoveries can be promised. I find that in using serum as a curative it is important to pay attention to the temperature and appetite, its injection being useless when the temperature is above 105 degrees F., or where the

appetite is entirely absent regardless of temperature. If the animals still eat and the temperature is not above 105 F., I believe that the administration of serum will save the larger portion of these hogs. The doses, however, should be increased to one and one-half the dosage for healthy hogs. As the dose of anti-hog-cholera serum is gauged according to the weight of the animal, it is important that the user be proficient in judging the weight of hogs; he should at least make sure to estimate them on the safe side, rather estimating them over, than under, weight.

Poultry Department

Hatching and Brooding

**Natural vs. Artificial Incubation—Moisture the
Supreme Question—A Natural Way
to Supply It.**

Without doubt there are many incubators being set this month (February) with expectations of ninety per cent hatches. In reality the hatches will average about forty per cent with beginners. The incubator is an indispensable machine on the commercial poultry plant but the claims made by most manufacturers are greatly exaggerated.

Experienced operators can secure nearly as many and as high-quality chicks from the machine as from the hen, but the hen-hatched chicks are a trifle better in quality which trifle is a good deal in a show bird. The principal item of expense in natural incubation is labor. If one is breeding on a small scale and has plenty of "spare

time" the natural system is therefore the cheaper but where the labor is hired artificial incubation will be found the cheaper system.

The value of a broody hen's time is practically nothing as it requires nearly as long to "break up" a broody hen and start her to laying again as it does to allow her to hatch a brood of chicks and she will lay all the better later in life for a little rest. It is not natural incubation when a hen is set in a nest of dry straw high off the ground. Natural incubation is found where the hen "steals her nest." When allowed to "steal her nest," the hen selects some secluded, well sheltered spot and builds her nest on the ground using a very little grass to encircle it and retain the heat. The eggs are directly on the moist soil and nearly every egg hatches.

The setting hens should have a house and yard by themselves away from the laying hens.

The nests should be alike and all placed in as equally attractive places as possible to prevent the hens fighting for the favorite nests.

Each nest should be not less than 12x14x14 and should be provided with a door to confine the

hen and darken the nest when desirable. The nesting material should be soil or an inverted sod and a very little straw and the soil should be kept slightly moist during the entire period. Except when hatching it is best to allow the hens to leave the nest and return at will except in the case of a few who are disposed to drive other hens from their nests. Care should be taken that each hen leaves her nest long enough to take a little exercise each day for the first few days after being set as, if she does not, she will become a victim of diarrhoea. After the first few days the hens will leave the nest as often as necessary. The food for the broody hen should be whole corn and sharp grit kept constantly before them and plenty of green food. When the chicks begin to hatch the door to the nest should be closed till the hatch is over. This prevents the hen leaving the nest before all the chicks are ready and also prevents interference from the other hens. If the hen appears restless after the eggs begin to pip it will prevent her smashing to death some of the chicks to remove the nest (after closing the door) to a dark room. As a rule, however, the

less one "fusses" with a setting hen the better, especially after she begins to hatch.

Printed directions for operating are always sent with incubators and it is generally best to follow closely the directions, but one should always use common sense.

I remember the directions for one of the first incubators I used called for a ten minute cooling of the eggs at the start and gradually increased the time to thirty minutes on the morning of the 18th day, making no allowance for outside temperature. Now any boy knows that eggs having a temperature of 100 degrees F. would cool as much in 10 minutes in an atmosphere of 60 degrees F. as they would in 20 minutes in an atmosphere of 80 degrees F. Common sense is necessary in all things. The length of time allowed for cooling the eggs must necessarily depend upon the temperature of the atmosphere but at no time during the period of incubation should they be cooled long enough to feel cold to the touch. Nearly all the authorities agree that 101 degrees F. to 102 degrees F. is the best temperature for the first two weeks and 103 degrees for

the third week. The greatest danger from overheating is during the first few days of incubation.

The moisture question is the hardest question of all to solve and the question upon which nearly all incubator manufacturers disagree. Most incubator manufacturers include hygrometers with their operating outfits for measuring the humidity of the air in the air chamber. But the point at which the hygrometer should register varies with the incubator, because rapidly moving air carries away much more moisture from the eggs than air that moves more slowly. The appearance of the egg when held to the tester in a dark room is a very safe guide to the amount of moisture to use. If the embryo shows a distinct black spot close to the shell of the egg with bright scarlet red veins there is either insufficient moisture or the temperature has been too high. On the sixth day the embryo should show an indistinct outline with dull red veins. This shows that the embryo is deep in the egg and encircled with plenty of watery albumen. There are many

methods of supplying moisture such as water pans, sponges, sand pans, and sprinkling.

I have receive best results by placing a pan of water five or six inches under the ventilator in the bottom of the machine and running a common lamp wick from the water pan up through the ventilating hole. In this way the air coming into the machine becomes moisture laden by coming in contact with the damp lamp wick from which the moisture is evaporating. After the 14th day of incubation the wick should generally be detached till the 19th day when much moisture is again needed to moisten the lining of the eggshells and make it easy for the chicks to break. If the air is very dry it will be found beneficial to sprinkle the eggs before they begin to pip as all ventilators should be wide open while the chicks are hatching and this makes a circulation of that will carry away considerable moisture. The chicks should remain in the machine till all are thoroughly dry when they may be removed to the brooder.

The fireless brooder has grown much in favor during the past few years principally because it

is very low in first cost. Counting cost of labor, however, it is much the most expensive system of brooding.

For the housewife who has plenty of time to devote to raising a few broilers for the family table the fireless system has its advantages but for the man who makes a business of raising poultry on a large scale the fireless system is not practical. It requires much time to teach the chicks to go into the brooder to get warm and in any but very warm weather they require almost constant attention the first week to prevent chilling. Good results have been obtained by operating the fireless brooder house but this is not so satisfactory as the heated brooder and cold brooder house system.

With the fireless system the chicks must be kept in small flocks of about 25 each to prevent their smothering when crowding to get warm. With heated brooders, (those having the correct principles of heat and ventilation) chicks have been successfully brooded in flocks of over one thousand to the brooder thus reducing the cost of labor to a minimum.

A brooder should be so constructed that it is warmest in the center and grows gradually cooler as it approaches the outer edge. It should then be kept warm enough so the chicks keep a little distance from the center. With this system a regulator is useless, if there is too much heat near the center of the brooder the chicks go nearer the outside of the hover where the air is cooler. A thermometer is useless in any brooder. You cannot measure comfort with a thermometer. Simply keep the chicks comfortably warm regardless of temperature, that is all that is necessary.

When one can obtain hens to do the brooding this will be found much the cheapest and best system. During the winter months it is best to confine the hens in lath coops in colony houses, letting the chicks have the run of the house after the first few days when they will all return to their proper mothers if there are not more than four to six hens to the house. Of course with this system the chicks must be kept in smaller flocks than where artificial brooders are used but the hens require practically no care at all while the artificial brooders do. The small chicks do

not readily learn the way in and out of the colony house so it is better to use individual outdoor brood coops during warm weather but early in the season the colony house is much better as there is then no advantage in an outside run until the chicks are five or six weeks old when they readily learn the way in and out. The floor of the colony house should always be of boards, likewise the floors of the brood coops, as earth floors are always more or less damp and cannot be thoroughly cleaned without removing the earth. The litter on the earth floor is liable to mould and cause white diarrhoea. Not more than twenty chicks should be given one hen and if the weather is very cold, so the chicks must spend much of their time under the hen, fifteen to each hen is better. The individual brood coops should be not less than thirty inches square with floor, roof and three sides perfectly tight. The roof should project about eight inches over the front of the coop and the top of the front should be confined, especially in hot weather to give ventilation when the rest of the front is closed on cold nights. When the chicks are small the hen should

be confined, especially in hot weather, as she is very industrious in searching for food and if given her liberty will wear the chicks out to keep up with her. In this way many chicks are stunted and others killed. Where one has a cornfield or orchard for the chicks to range in so that they are not kept in the sun long at a time there is not so much danger. A small slatted run may be used in front of the brood coops to confine the hen when she will be comfortable in warm weather if the run is well shaded. After the chicks are several weeks old the hen may be given her liberty and she will find a large number of insects for the chocks.

C. A. S.

The Advantage of Incubator Over the Hen

So many people ask, and especially those starting in the poultry business, this question: "Which is the more successful in hatching chickens, the hen or the incubator?"

I don't think there is any doubt in the minds of most poultry raisers about the hen being the best to hatch the greatest per cent of fertile eggs. There can be so much said on both sides of this subject and at the finish the question would still be asked. If I had a great number of hens and could dispense with the eggs they might lay I would use hens altogether, provided they would get broods early enough. And that one reason has caused hundreds of people to use incubators.

In saving eggs for hatching you can set them when they are fresher, say, 15 or 30 at a time when using hens, whereas saving for incubator

you keep the first until you have, say 100 or more. Of coure the first saved as not as liable to hatch as the last ones (eggs should be turned while saving, too).

Having your eggs saved nice and smooth, all of one color and size, you don't have to wait on the hen but can start your incubator as early as you wish, and rest assured the machine won't "fight," "peck," or leave the eggs. You may neglect the lamp but the machine will stay right there, and I am sorry to say Biddy doesn't always do so. The fighting one can put up with, but when she sits a week and leaves her nest of your choice and sometimes valuable eggs one certainly does feel "sore." I have heard of people that could get 95 and 96 per cent of chickens and 125 chicks from 135 eggs and so on. I have heard of it only. Those are the people to use incubators altogether. I can not get such results. I only wish I could. I would never take any chances with hens. But I feel that if we get 50 per cent in January or February the ones hatched then will be worth more than two or three times as many chickens hatched two months later, or when

the hens get broody. The earlier chickens do so much better and seem to be stronger and more thrifty. In my experience I raised a greater per cent of the ones hatched early than at any time after. They seem to grow from the very start and are good sized chicks before the weather gets very warm. Most people are more energetic and ambitious at the first of the season, and one can hardly wait until the little fluffy balls of down are hatched. It is very interesting, and later I think one loses the interest to a certain extent, and the last ones don't have the same care and attention that our first chicks get, and especially is this the case if one has lost very many.

I think one great advantage the incubator chicks have is that they are more gentle than those let to run with hens; especially in show birds you notice this. It is only natural for a judge to favor a fine bird that poses and "talks back" to him, to one that is easily frightened.

Also the brooder chicks learn to depend on themselves in case of rain and soon learn to run under the hover, while a hen nine times out of ten will stop under a small bush and try to hover

her flock and possibly start out with them through the wet grass and water.

As "the early bird catches the worm," so it is the best bird that takes the ribbon. Usually the early ones are the best, so we may change it to "The early bird catches the ribbon."

MRS. A. G. WRIGHT.

Raising Poultry on a Town Lot

We have two of the Prince T. Wood open-air houses, and the front is left open both summer and winter. The droppings boards are in the north part of the house and are fastened to the north wall about two feet above the floor, with the roosts just a little above them. Both the houses have dirt floors covered about eight to twelve inches deep with straw and leaves.

In the summer the hens are allowed to run into an open pen, but when it is cold or there is any frost on the ground the hens are never allowed out of the houses.

Our method of feeding is as follows: In the morning we throw about an ounce of feed per hen into the litter for them to warm up on. At noon we give them a green feed of cabbage, mangel wurzels, or sprouted oats, and a few more handfuls of wheat or kaffir in the litter. At night, between four and five o'clock, a full feed

of about two ounces per hen is given. This is kaffir or wheat in the summer and corn and kaffir corn in the winter.

Besides these feeds we keep a dry mash before the hens at all times. This is a mixture of 6 parts shots, 4 parts bran, 4 parts cornmeal, 4 parts coarse meal, 1 part oil meal, and 1 part alfalfa meal. Let them have slightly warmed water in the winter to take off the chill, three or four times a day. Also keep grit, oyster shell, charcoal, and dry wheat bran in hoppers all the time. In very cold weather the grain for the litter can be warmed to a good advantage. In the summer time we also have green feed from the garden, and this lessens the amount of sprouted oats given. This seems like lots of work to feed a few fowls but for the last five years it has been bringing in a good profit for the amount invested, besides furnishing a lot of pleasure and outdoor exercise.

B. W.

Recipe that will Prevent and Cure Chicken Cholera

Carbolic acid, blue vitriol, salt peter, copperas, of each two ounces. Dissolve in four gallons of water, then put one pint in four quarts water and give chickens to drink two or three times a week when cholera is in the neighborhood and you need have no fear of losing chickens.

Here is a louse killer that cannot be beat and should be kept at all times not only on the farm but any place there is a few chickens.

Take naphthalene	1 pound
Sulphur	1 pound
Scotch snuff	6 ounces
Whiting	3 pounds

Mix and you have it. This is absolutely certain and will not, as many other lice destroyers, kill the little chicks. Also first clean the hen

house thoroughly and dust a liberal supply in the nests and on the roosts and in case the little chicks have mites on them, catch the old hen and dust her good and this will be a plenty for the little chicks.



**Thoroughbred German Coach Horse from the Pratt County
Waldock Lake Ranch, J. C. Bergner & Sons, Props.**

Turon, Kansas, February 7th, 1913.

To Whom It May Concern:—

The bearer of this letter, Dr. S. R. Janes, has done business with this bank for several years and we have found him perfectly honest and square in all his dealings with us.

Very respectfully,

E. E. SHIVE,

Cashier, The Farmers' State Bank.

Turon, Kansas, February 10, 1913.

To Whom It May Concern:—

This is to certify that I have known Dr. S. R. Janes for the past seven years and have always found him to be a man of integrity and honesty. He has practiced Veterinary Surgery in Turon during all of our acquaintance with unusual success and I believe him to be authority on all subjects pertaining to his profession.

G. E. FORNEY, Druggist.

Turon, Kans., Feb. 7, 1913.

To Whom It May Concern:—

I have known Dr. S. R. Janes for the past eight years during which time he has lived in Turon and know he has made a success of whatever he has undertaken and himself and family are considered among our best citizens. He is a veterinary surgeon of more than ordinary ability and his honesty and integrity is above reproach.

W. B. REAM,

Editor Press,

Mayor of Turon.

Greensburg, Kansas, Feb. 9, 1913.

To Whom It May Concern:—

I have known Dr. S. R. Janes for some time and have ever found him a man of faultless honor and integrity.

He is a Christian man and worthy the confidence of any man.

In his particular field of work he has had large success and so far as I know has won the respect of those with whom he has dealt.

As a Christian gentlemen meriting your highest confidence, I heartily recommend him to you.

Yours very truly,

D. F. CROSS,

Pastor Christian Church,

Greensburg, Kansas,

(Formerly of Turon.)

Turon, Kansas, Feb. 10, 1913.

This is to certify that we have known Dr. S. R. Janes for the past eight years and as a citizen of our community he has proved himself a gentleman in every respect and speaking of him as a veterinary, he is considered one of the best in

the State. His record as a veterinary in this community has been very satisfactory.

We take great pleasure in recommending Dr. Janes to all who have never met him, both as a gentleman and a veterinary.

Yours respectfully,

E. O. ALLMON,

Gen. Merchandise.

Turon, Kansas, Feb. 8, 1913.

To Whom It May Concern:—

I can confidently recommend Dr. S. R. Janes as a reliable, competent and thorough veterinary.

Have known him for a term of years and always found him conducting himself as a Christian gentleman and faithfully discharging his duties with honor to the community and credit to himself.

It gives me pleasure to speak a word for such a man, knowing he justly merits the confidence and support of any one desiring his services.

ERNEST M. ROWELL,

Turon Merchant.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

Be it known that the bearer is a personal acquaintance of mine having known him for the past eleven years and know him to be an honest, upright Christian gentleman, and a veterinary of no mean ability. Any dealings he may have with the public will be honestly and conscientiously transacted on his part. Bearer, S. R. Janes, V. S.

By ED. S. GRAY,

Barber Merchant.

Turon, Kansas, Feb. 10, 1913.

To Whom It May Concern:—

This is to certify that I have known Dr. S. R. Janes for a number of years, and can recommend him in every way. He is a good Christian gentleman, and honest and straight in all of his dealings as far as I know. His work for me has always been satisfactory.

Very truly yours,

E. M. GREENMAN,

Gen. Merchandise.

Turon, Kansas, Feb. 10, 1913.

We, the undersigned, will say, with frankness, that we find Dr. S. R. Janes to be a straight, up-right man in every respect in his chosen profession and every day life. Courteous to his fellow man and well liked by all who have had the pleasure of meeting him.

We can highly recommend him to all who may have a chance to meet him.

SHERMAN AND NELSON,
Liverymen.

Hutchinson, Kansas, Jan. 9, 1913.

This is to certify that Dr. Janes of Turon is personally known to me to be not only a Christian gentleman, but a first class veterinary surgeon. Gladly do I add my humble word of commendation. He understands his work and you can depend upon his word. Any favor shown him will be appreciated by me.

Fraternally,

W. L. HARRIS, Evangelist.

Conway Springs, Kansas.

Feb. 10, 1913.

To Whom It May Concern:—

This is to certify that I, as a pastor of the Church of which Dr. S. R. Janes was a member, at Turon, Kansas, can most heartily commend him as to Christian character and honesty in his business dealings. And furthermore, he having done veterinary and dental work for me, I found his work most satisfactory.

Very respectfully,

H. WRIGHT NICHOLSON,
Minister.

Turon, Kans., Feb. 7, 1913.

To Whom It May Concern:—

I have known S. R. Janes, V. S., for four years of my residence here.

As for fairness in business and uprightness in dealing, I can recommend him.

He has made good in his profession in this community.

Yours,

J. R. FORTNA & SON,
Lumbermen.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

This is to certify that I have known Dr. S. R. Janes for several years. He has always proved himself to be a man of honor and much integrity.

As a veterinary, he has given high satisfaction among our people. I can recommend him in whatever project he undertakes to do.

Sincerely,

B. H. POPE, M. D.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

I have known Dr. S. R. Janes, V. S., for a number of years. Have had considerable business dealings with him and have found him honest and upright in every particular and I can also recommend his work as a veterinary surgeon.

J. J. LAMONT,

Produce Dealer.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

We have known Dr. S. R. Janes for the past seven years. We have found him to be a good

man to do business with in our bank and his reputation as a veterinary is first class. We believe whatever statements he may make, can be relied on, and it is our opinion in whatever he undertakes he is able to make good.

M. H. POTTER,
President, State Bank of Turon.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

We have known Mr. S. R. Janes, Vet. S., for the past several years and have always found him ready and willing to carry out anything that he has undertaken or agreed to do. He has made good in his line in this territory so far as we know and our business relations have always been very satisfactory.

Yours very truly,

POTTER MERCANTILE CO.,
per J. W. Potter, Pres.

Turon, Kansas, Feb. 7, 1913.

To Whom It May Concern:—

I have known Dr. S. R. Janes for the last five

years; as for fairness and square dealings, I can recommend him.

Yours truly,

C. MUNHALL,

Prop. Turon Hotel.

Turon, Kansas, Feb. 10th, 1913.

To Whom It May Concern:—

This is to certify that I have been acquainted with the bearer of this letter, Dr. S. R. Janes, for over seven years, and that Dr. Janes bears a good reputation in this community and is spoken highly of in his profession as a veterinary surgeon.

Very respectfully,

W. H. HARPOLE,

Prop. Restaurant.

Turon, Kans., Feb. 10, 1913,

To Whom It May Concern:—

Introducing Dr. S. R. Janes of Turon, take great pleasure in directing your attention to him as one of our leading citizens of excellent reputation, and character of high moral standard.

And whose professional opinion and services are widely sought by our people.

C. L. ELY,
Mgr. Ely Mercantile Co.

Sioux City, Iowa, Feb. 13, 1913.

To Whom This May Concern:—

I have known Dr. S. R. Janes of Turon, Kansas for over fifteen years, and have always found him to be honest in all of his dealings, as a man conscientious and upright, a man with a sympathetic heart for one who may be down, a philanthropist in rendering them succor.

As a veterinary, he ranks with those who stand at the head of that profession. Not only is he skillful in restoring to health the sick animal, but he shows the humane spirit in delivering a short lecture to the owner of the same, that he may know what to do to ward off a future attack, or know just what remedy to give that the animal may not have to suffer very long before the services of a veterinary may be secured; because of these ethical qualifications, and his knowledge of his profession he has always succeeded and without a doubt always will.

Therefore it is a great pleasure on my part to recommend him to all who may have use for him, in his line of work.

J. W. VAN DEWALKER, M. D.

Turon, Kans., Feb. 8, 1913.

To the Public:—

Dr. S. R. Janes has been a resident of our city for the past eight years, have always found him a thoroughly reliable and courteous gentleman. Stands very high professionally through this section.

Yours very sincerely,

THE TURON MILL & ELE. CO.

Turon, Kans., Feb. 7, 1913.

To Whom It May Concern:—

We have known Dr. S. R. Janes for several years and it is with pleasure we state that we always have known him to be a man of advanced ideas, good judgment and a man we would not hesitate to recommend. Dr. Janes is giving excellent satisfaction among our people as a veteri-

ary and we believe none of them would hesitate to second our recommendation.

Yours very truly,

C. A. DICKHUT,

Kansas Hdw. Co.

Turon, Kans., Feb. 10, 1913.

To Whom It May Concern:—

I can cheerfully recommend Dr. S. R. Janes both as a veterinary surgeon and as a man of high standing. And I believe he will make good any promises he makes.

A. L. SPROUT,

Mgr. Union Motor Co.

Turon, Kansas, Feb. 7, 1913.

We have personally known Dr. S. R. Janes for the past three years. Our business relations have been no other than pleasant and as to his profession I believe him to be a success.

Respectfully,

WALTERS & GRAVES,

Prop. City Meat Market.

Turon, Kans., Feb. 10, 1913.

To All to Whom This May Concern:—

That I having known Dr. S. R. Janes for a number of years have found him to be a gentleman, honest and trustworthy in every respect to the best of my knowledge.

F. A. DEVLIN,
Jewelryman.

Turon, Kansas, Feb. 10, 1913.

To Whom It May Concern:—

I, manager of Turon Telephone Company, will say I have known Dr. Janes for six years. Have employed his services as veterinary and am well pleased with his work.

Wishing him success, I remain,

Yours respectfully,

H. R. GEESLING,

Mgr. Turon Telephone Co.

Turon, Kansas, Feb. 10, 1913.

To Whom It May Concern:—

This is to certify that I have known Dr. S. R. Janes for the past six years. That I know him to be a professional man and a Christian gentle-

man. That he stands well in this community both socially and professionally.

M. S. THACHER, M. D.

To Whom It May Concern:—

Turon, Kans., Feb. 10th, 1913.

To Whom It May Concern:—

I can cheerfully recommend Dr. S. R. Janes both as veterinary surgeon and as a man of high integrity. I believe he will make good in any promise he makes to the public.

W. W. ZINK,

City Marshal.

Turon, Kansas, Feb. 10, 1913.

To Whom These Presents Shall Come, Greeting;

This is to certify that I have known Dr. S. R. Janes for a number of years, and can recommend him as a man of honor and a workman second to none in his profession.

F. L. ELY,

Prop. Palace Restaurant.





W. H. BOYD

Who Assisted in the Compilation of this Book

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